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TECHNOLOGY GROUP

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with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

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so your equipment works exactly as you specify.

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- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

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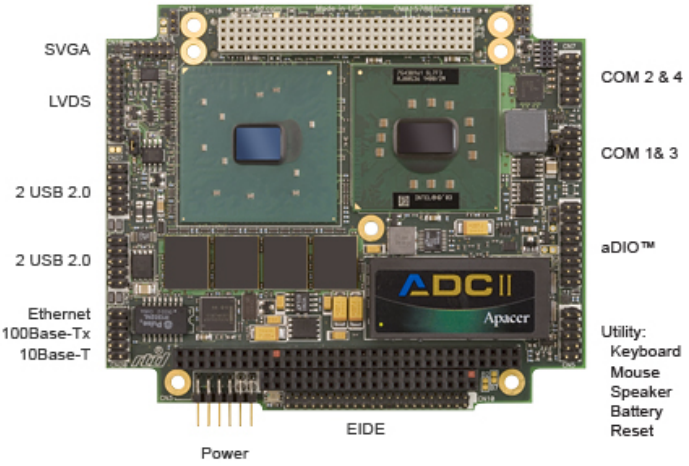


CMA157886PX1400HR

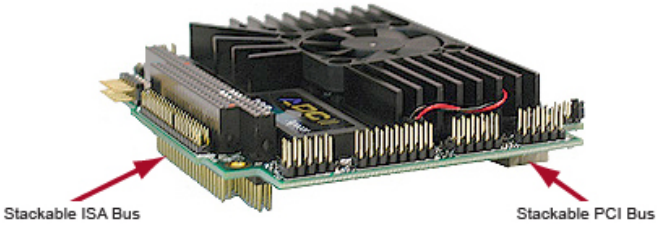
PC/104-Plus Single Board Computer & Controller
1.40 GHz Intel® Pentium® M

Key Features

- PC/104 Form Factor
- PCI-104 Stackable Bus Structure
- Complete PC-compatible Single Board Computer (SBC)
- Available in stackable, rugged enclosures
- **Intel Pentium M 1.40 GHz Processor on 90nm**
- Thermal throttling
- Nonvolatile storage of CMOS settings without battery
- Stackable 120-pin PCI bus
  - 4 Bus master add-on cards capable
- 256 Mbytes BGA DDR SDRAM (Surface-Mounted)
  - Up to 333 MHz Data Rate
- 32-pin SSD socket:
  - Removable Onboard Miniature Industrial ATA/IDE Flash Drive up to 8GB (4GB Standard)
  - Flash Drive PIO Mode with BIOS-configured write protect function (available upon request)
  - Natively supported by all major operating systems
- BIOS Selectable 14-bit Digital I/O with Advanced Digital Interrupt Modes with Ground and +5 VDC
- 10/100 Ethernet with PXE Network Boot
- Four RS-232/422/485 Ports
- Four USB 2.0 (Universal Serial Bus) Ports
- EIDE Controller with UltraDMA 100
- 855GME SVGA controller Onboard with 3D Acceleration
- DirectX & OpenGL 3D Accelerator
- Advanced power management features including Enhanced Intel SpeedStep Technology
- Advanced Thermal Management
  - Thermal Throttling reduces clock speed to prevent thermal runaway
  - Auto Fan Control only runs fan when needed
  - Hardware monitor for CPU temperature, board temperature, and power supply voltages
  - Mini Fan Heatsink with Auto Fan control
  - Passive Structural Heatsink & Heatpipes in IDAN and HiDAN System Configurations
- Advanced Programmable Interrupt Controller (APIC)
- 24 interrupt channels with APIC enabled (15 in legacy PIC mode)
- 3 timer/counter channels
- High resolution 100 MHz APIC timer
- RTD Enhanced BIOS with ACPI, USB Boot and Quick Boot modes
- Advanced Configuration and Power Interface (ACPI)
  - ACPI 1.0 Compliant
  - Supported power down modes: S1 (Power On Suspend), S3 (Suspend to RAM), S4 (Hibernate), and S5 (Soft-Off)
  - CPU Clock Throttling and Clock Stop for C0 to C3 Support
  - Also supports APM 1.2 for legacy power management
- 3.3V or 5V PCI bus signaling
- 400 MHz, source-Synchronous Front Side Bus
- Supports MMX and SSE2 instructions
- Math coprocessor
- Internal Cache
  - L1 - 32KB of instruction and 32KB data; L2 - 2MB
- Y2K compliant real time clock (external battery required)
- Watchdog timer
- PS/2 Mouse Port



CMA157 Single Board Computer



CMA157 Single Board Computer (side-view with heat sink installed)



Flat Heat Spreader Options Available

- Keyboard Port
- Speaker Port

Technical Details

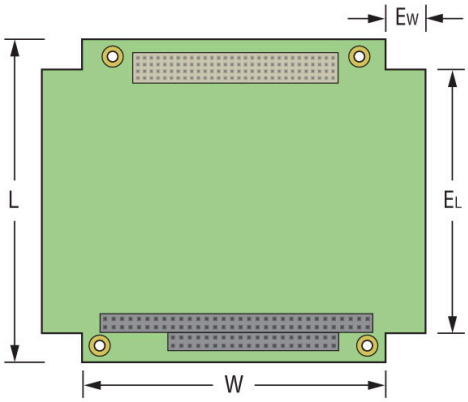
- Fast Ethernet
  - Ethernet Controller
    - Intel 82562 Fast Ethernet PCI Controller
    - Integrated 3KByte Transmit and 3Kbyte Receive FIFOs
  - Physical Layer
    - 100Base-Tx and 10Base-T
    - Full Duplex support
  - Easy to Use
    - Low Power Features
    - LED Status
    - Software configuration
- 855GME SVGA controller for CRT and LVDS Flat Panel
  - Analog SVGA Output
  - LVDS Flat Panel output
  - Resolution up to 2048 x 1536 pixels with 32K colors
  - VGA, SVGA, XGA, SXGA, UXGA
  - Up to 16 million colors
  - 64-bit AGP Hardware graphics-accelerator
    - 2MB to 64MB of shared SDRAM high-performance memory
- Four BIOS configurable RS-232/422/485 serial ports on two connectors, each connect configurable as:
  - One full RS-232 port with TxD, RxD, CTS, RTS, DSR, DTR, RI, and CD
  - One RS-422/485 port with TxD+, TxD-, RxD+, RxD-, with 120 ohm termination jumper
  - Two RS-232 ports:
    - One with TxD, RxD, CTS, and RTS
    - One with TxD and RxD
  - One RS-232 port with TxD and RxD, and one RS-422/485 port with TxD+, TxD-, RxD+, RxD-, with 120 ohm termination jumper
  - Jumper enabled two RS-422/485 ports each with TxD+, TxD-, RxD+, RxD-, with 120 ohm termination jumper
  - 16550 compatible UARTs for high-speed
- 14 Advanced Digital I/O (aDIO)
  - One 8-bit-programmable I/O with Advanced Digital Interrupt Modes
    - Event Mode Interrupt generates an interrupt when any input bit changes
    - Match Mode Interrupt generates an interrupt when input bits match a preset value
    - External Strobe Mode latches 8 data inputs and generates and interrupt
  - One 4-bit port programmable as input or output
  - Two Strobes can be configured as readable inputs.
- Four USB 2.0 (Universal Serial Bus) Ports
  - High-speed, full-speed, or low-speed
  - 500 mA @ 5 Vdc provided per port
  - USB Boot capability
- UltraDMA-100 / 66 / 33 Master Mode PCI EIDE Controller
  - Transfer rate up to 100MB/sec using UltraDMA
  - Increased reliability using UltraDMA-33 transfer protocols
  - Support ATAPI compliant devices including DVD drives
  - 48-bit LBA support for hard drives larger than 137GB
- Utility port
  - PC-AT compatible keyboard port
  - PS/2 Mouse Port
  - Speaker (0.1W output) port
  - Hardware Reset input
  - Battery input for Real Time Clock
- Power I/O
  - Access to PC/104 Bus power pins
    - Gnd, ±12 & 5 VDC
  - Access to PC/104-Plus Bus pins
    - Gnd, ±12, 5 & 3.3 VDC
- ISA Expansion Bus
  - Full ISA bus operation.
  - Supports 8-bit (XT) and 16-bit (AT) peripherals.
  - All ISA IRQ lines and DMA channels supported.
  - Supports both I/O-mapped and Memory-mapped expansion cards.
  - Subtractive Decode of PCI cycles
    - Existing software can be used without modification.
    - No special setup required.
- Mating Connectors
  - Standard 12-pin 0.1" DIL header (Power)
  - Standard 10-pin 0.1" DIL header (Utility, COM1, COM2, USBs, Ethernet)

- Standard 10-pin 2mm DIL header (SVGA)
- Standard 20-pin 2mm DIL header (Panel)
- Standard 16-pin 0.1" DIL header (aDIO)
- Standard 44-pin 2mm DIL header (EIDE)

Software

- RTD Enhanced BIOS
  - Supports boot from IDE, USB, or Ethernet (PXE)
  - Serial Console Redirection
  - Flash-based CMOS Setup – No battery required to store settings
  - Fail Safe Boot – Load DOS even if no boot device is present
  - Special RTD Reliability Enhancements
- Compatible with all x86 PC operating systems:
  - DOS (MS-DOS, ROM-DOS, PC-DOS)
  - Windows (XP, XP Embedded)
  - Linux (desktop and real-time versions)
  - RTOSes such as QNX, VxWorks, Windows CE, and xPC Target
  - Note: Some hardware interfaces may require special drivers
- Includes pre-installed Datalight ROM-DOS
- Drivers and support provided for DOS, Windows, and Linux

Physical Attributes



- Dimensions
  - Board Size
    - Length (L): 3.775 inches (95.89 mm)
    - Width (W): 3.550 inches (90.17 mm)
    - Stand-off Height: 0.600 inches (15.24 mm)
  - I/O Extension
    - Length (EL): 3.125 inches (79.375 mm)
    - Width (EW): 0.500 inches (12.700 mm)
- Weight: Approximately 0.40 lbs. (0.19 Kg) with heat sink
- Standard Operating Temperature: -40 to +85°C, 90% humidity non-condensing
- Storage Temperature: -40 to +85°C
- MTBF: 244,061 hours
- Power Consumption: 13.7 W @ 5 V Typical

Recommended Accessories

- XK-CM77 Cable Kit
- XK-CM90 Cable Kit
- BRG1825: PCI to PCI Express Bridge

Documentation and Downloads

- Hardware Manual
- Rugged Enclosure (IDAN) Datasheet
- Drivers and Example Programs
- Software Manual(s)

Ordering Information

Part Number	Description	Value OEM*
CMA157886PX1400HR-256	1.4 GHz PC/104-*Plus* cpuModule with 256MB DDR SDRAM & 4GB Flash Drive	$4875

— Sequentially laminated PCB fabricated in accordance with IPC-6012 Class 3 Standards —

***OEM price includes soldered 256MB SDRAM and 4GB Removable Flash Disk (8GB Flash Disk option available)**

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Designed and Made in the USA

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Artisan Technology Group is an independent supplier of quality pre-owned equipment

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We buy equipment

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