

Hurricane-PM

EPIC Single Board Computer

Intel® Pentium® M, Intel® Celeron® M Processor

Features

Intel® Pentium® M, Intel® Celeron® M

2 x RS232/RS422/RS485

1 GB DDR333 RAM

Graphics 2048 x 1536 pixel

CRT, LVDS

IDE Ultra ATA100

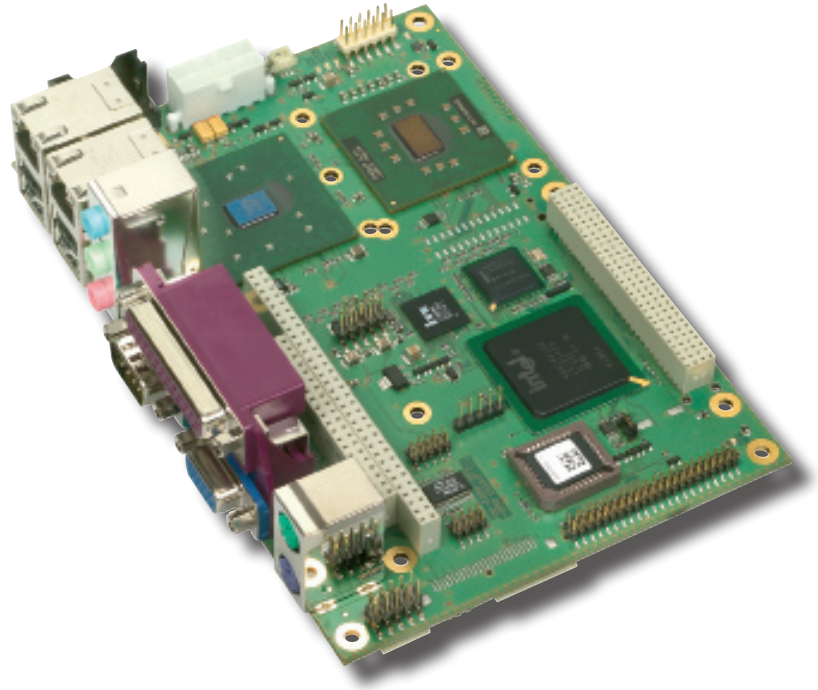
2 x Ethernet

6 x USB 2.0

AC97 sound

Only 20W power consumption

Extended temperature range -40°C ... +85°C



More Features

- PC/104, PC/104-Plus buses
- Watchdog



The Hurricane-PM is a high-performance EPIC board using Intel's Pentium® M processor for portable computers. This processor has a very good power/performance ratio and is therefore very well suited for embedded applications. The board integrates all peripherals needed to build an embedded PC on a small 115 mm x 165 mm (4.5" x 6.5") printed circuit board.

The Hurricane-PM combines the Pentium® M with the 855GME northbridge and an ICH4 hub. These devices incorporate already most of the standard PC peripherals. There is graphics controller capable of handling up to 64 MB shared RAM. With CRT and LVDS adapters, many display types can be readily connected. For LCD modules, backlighting is already provided on-board.

Two fast 100/10BaseT Ethernet ports, two RS232/RS42/RS485 serial ports, and six USB 2.0 host ports connect to external peripheral devices. PS/2 connectors for keyboard and mouse as well as a parallel printer port are also available. AC97 Sound I/O is supported, too. An IDE ATA100 adapter connects with hard disk or CD drives.

Applications that require non-moving storage can use the built-in uDOC interface and connect a suitable FlashDrive to it.

System expansion is easily done using the PC/104 and PC/104-Plus connectors and adding suitable specialized I/O modules.

The Hurricane-PM is powered by a micro ATX supply and supports ACPI, advanced power management and PCI power management.

The Hurricane-PM runs Windows, Linux and VxWorks operating systems.

LiPPERT is an independent design house and manufacturer that develops and builds special customer specific solutions. Please ask for a specific quotation.

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EPIC Single Board Computer

Intel® Pentium M, Intel® Celeron M Processor

Technical Specifications

Board Format	EPIC, 115 mm x 165 mm (4.5" x 6.5")	Sound I/O	AC97: Line-in, Line-out, Mic-in
Processor	Pentium® M: 1.4GHz, 1.8GHz Celeron® M: 1.0GHz	Watchdog	yes
Speed	1.0 / 1.4 / 1.8 GHz	Status LED	HDD, power, live, standby
Core logic	82855GME ICH4	Operating temperature	-20°C ... +60°C (standard) -40°C ... +85°C (optional)
RAM (max.)	1 GB DDR333-SODIMM	ISA Bus	PC/104
RAM clock	333 MHz	PCI Bus	PC/104-Plus
Graphics	Integrated in 855GME up to 64 MB video memory	LPC Bus	Available
CRT	Analog VGA 2048 x 1536 pixel at 75 Hz max.	Power Supply	5 V +/-5% 10 pin mini-ATX power connector All necessary voltages are generated on-board.
LVDS	Dual channel, 24 bits 1600 x 1200 pixel at 60 Hz max.	Power Consumption	1.0 GHz: ~20W 1.4 GHz: ~25W 1.8 GHz: ~35W
USB	6 x USB 2.0 (4 on I/O panel)	Cooling	Depending on processor speed and temperature range
Ethernet	100/10MBit using i82562 100/10MBit using i82551	MTBF	>100.000 h (t.b.d.)
Serial	2 x RS232/RS422/RS485	BIOS	Phoenix FirstBIOS Parameters are saved in FEPROM, BIOS parameters are also saved in FEPROM
LPT	Parallel printer port	Supported OS	Windows XP, XP Embedded, Windows CE, Linux, VxWorks
IDE	1 x Ultra ATA100 (ATA6) port		
uDOC	10 pin header for USB 2.0 Flash Drives, shared with USB4/5		

Ordering Information

Ordering Number	Description
<i>t10-0002-10</i>	EPIC board with Intel Celeron® M 1.0GHz, 6 x USB2.0 RTC, IDE, 2xCOM, PS/2 keyboard and mouse, watchdog, VGA, LVDS, 2 x Fast Ethernet, AC97 Sound. Passive heatsink
<i>810-0003-10</i>	EPIC board with Intel Pentium® M 1.4GHz, 6 x USB2.0 RTC, IDE, 2xCOM, PS/2 keyboard and mouse, watchdog, VGA, LVDS, 2 x Fast Ethernet, AC97 Sound. Passive heatsink
<i>810-0004-10</i>	EPIC board with Intel Pentium® M 1.8GHz, 6 x USB2.0 RTC, IDE, 2xCOM, PS/2 keyboard and mouse, watchdog, VGA, LVDS, 2 x Fast Ethernet, AC97 Sound. Active heatsink

Note: *t* denotes the temperature range. Substitute with **8** for standard and **9** for extended temperature range

