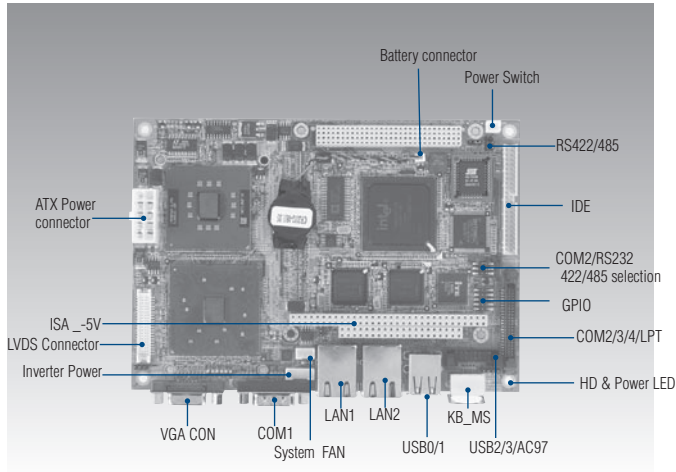


# PCM-4386

## Onboard Intel® Celeron® M EPIC CPU Module



## Specifications

### General

- **CPU** Embedded Intel Celeron M
- **System Chipset** Intel 852GM GMCH/ICH4 Chipset
- **BIOS** AWARD® 4 Mbit Flash BIOS
- **System Memory** 200-pin SODIMM socket, Rate (DDR) 128 MB to 1 GB, accept 128/256/512/1 GB DDR200/266 DRAM
- **Power Management** APM1.2, ACPI support
- **SSD** Supports CompactFlash® Card TYPE I/II (shared 2nd IDE Channel)  
USB memory, uDOC (option)
- **Watchdog Timer** Single chip Watchdog 255-level interval timer, setup by software
- **Expansion Interface** Supports 8/16 bit ISA bus for standard PC/104 device (ITE 8888g), PC/104-Plus
- **Battery** 2-pin wafer box for external Battery on board

### I/O

- **I/O Interface** 1 x EIDE (UDMA 33), 1 x FDD, 1 x K/B, UDMA 100 with PCM-063 riser card, 1 x KB/mouse, 3 x RS232, 1 x RS232/422/485, 1 x LPT
- **USB** 6 x USB 2.0 compliant Ports (2 ports on board connector, 4 ports pinhead)
- **Audio** ICH4 AC97 3D surround stereo sound  
Supports Line-in, Line-out, Mic-in (with PCM-410 option)
- **IrDA** N/A
- **GPIO** 8-bit general purpose input/output

### Ethernet

- **Chipset** Intel 82551, optional 82541PI (Gigabit for optional)
- **Speed** 10/100 Mbps
- **Interface** 2 x RJ45
- **Standard** IEEE 802.3u 100Base-T

### Display

- **Chipset** Intel 852GM chip integrated. (Extreme Graphics 2)
- **Memory Size** Optimized Shared Memory Architecture, supports up to 64 MB frame buffer using system memory

## Features

- EPIC form factor (115 mm x 165 mm)
- Embedded Celeron® M Processor on board and support for PC/104-Plus bus
- SODIMM socket supports up to 1GB DDR SDRAM (optional)
- Display Combination: CRT + LVDS display support
- Support four COM & four USB 2.0 ports
- Dual 10/100/1000 Mbps PCI Ethernet interface
- Support Compact Flash/uDOC (option)
- Support ATX/ AT power

- **Resolution** CRT Display mode: pixel resolution up to 1600 x 1200 at 85-Hz and 2048 x 1536 at 75-Hz  
LCD Display mode: Dual channel LVDS panel supports up to UXGA panel resolution with frequency range from 25 MHz to 112 MHz
- **LCD Interface** 2 Channel (2 x 18/36-bit) LVDS
- **LVDS** Hirose connector support up to 2 channel (2 x 18-bit) LVDS LCD Panel
- **Dual Independent** CRT + 36-bit LVDS

### Mechanical and Environmental

- **Dimension (LxW)** 115 x 165 mm (4.5" x 6.5")
- **Weight** 0.85 kg (weight of total package)
- **Operating Temperature** 0 ~ 60° C (32 ~ 140° F)
- **Operating Humidity** 0% ~ 90% relative humidity, non-condensing

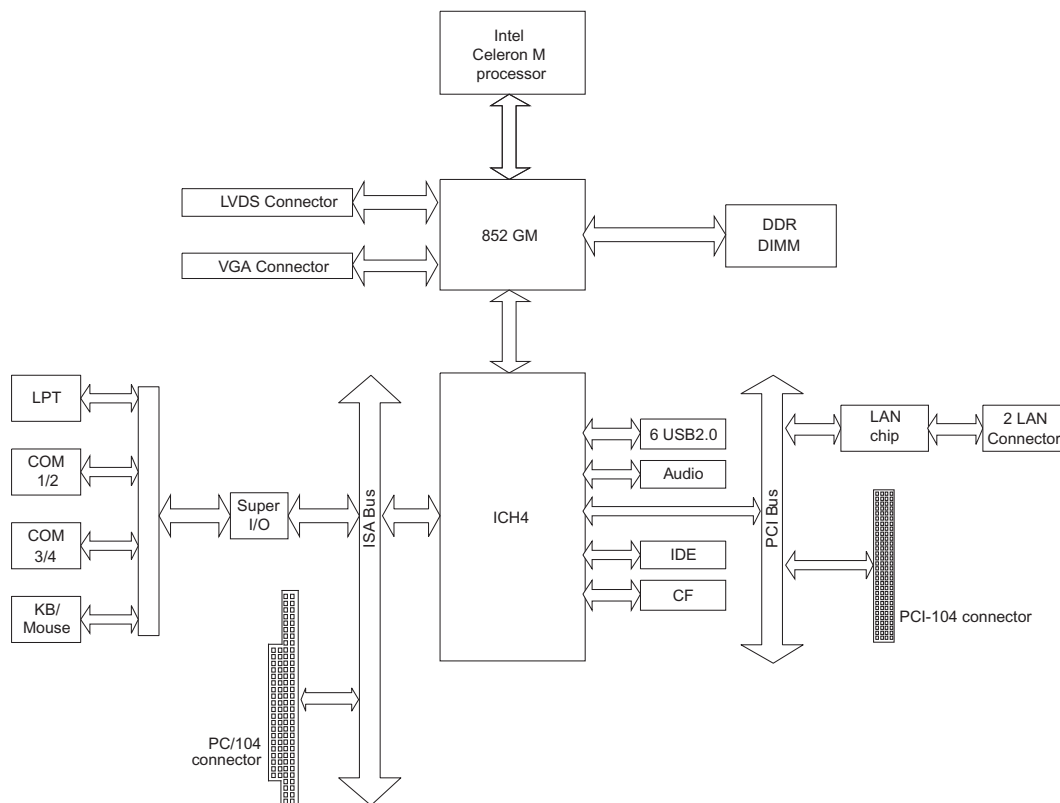
### Power

- **Power Supply Voltage** ATX, +5 V ± 5%, ±12 V ± 5%  
A2 version support: AT, 5 V only to boot up, 12 V for LCD inverter and PC/104 module (12 V optional for PC/104 add on card and LCD inverter)
- **Power Consumption** (Celeron M 600 with 256 MB DDR266)  
Max (HCT): 2.63 A @ 5 V, 0.03 A @ 12 V  
Typical: 2.62 A @ 5 V, 0.03 A @ 12 V, 0.49 A @ 3.3 V, 1.08 A @ 5 VSB

## Packing List

- 1 x PCM-4386 SBC
- 1 x Mini Jumper Pack (p/n:9689000002)
- 1 x Startup Manual
- 1 x Utility CD
- 1 x 3 COM and LPT cable (p/n:1700002034)
- 1 x ATX power cable (p/n:1700002055)
- 1 x 6P-6P PS/2 KB/MS (p/n:1700060202)
- 1 x USB cable 2 port/20pin (p/n:1700004891 )
- 1 x IDE cable (p/n:1701440504)
- 1 x USB CABLE 2 port/10pin (p/n:1700001267)
- 1 x AT power cable (p/n:1700003931)

## Board Diagram



## Ordering Information

Number	CPU	L2 cache	Chipset	10/100	LVDS	USB 2.0	COM	GPIO	LPT	CF	USB-DOM	Audio	PC/104-plus	Operation Temp.	Thermal Solution
PCM-4386F-M0A2E	Celeron M 600 MHz	512K	852 GM	2	2 channel 36/48-bit	4	4 ports	8	1	Yes	--	Optional	Yes	0 ~ 60° C	Passive
PCM-4386F-S0A2E	Celeron M 1.0 GHz	0	852 GME	2	2 channel 36/48-bit	4	4 ports	8	1	Yes	--	Optional	Yes	0 ~ 60° C	Passive
PCM-4386Z2-S0A2E	Celeron M 1.0 GHz	0	852 GME	2	2 channel 36/48-bit	4	4 ports	8	1	Yes	--	Optional	Yes	-40° C ~ 85° C	* Passive
PCM-4386U-S0A2E	Celeron M 1.0 GHz	0	852 GME	2	2 channel 36/48-bit	4	4 ports	8	1	--	Yes	Optional	Yes	0 ~ 60° C	Passive
PCM-4386FY-S0A2E	Celeron M 1.0 GHz	0	852 GME	2	2 channel 36/48-bit	4	4 ports	8	1	Yes	--	Optional	Yes	-40° C ~ 85° C	* Passive

\* PCM-4386Z2-S0A2E passed 16 hrs of dynamic burn-in test, perfect for fast-changing environments.

\* PCM-4386FY-S0A1E is Phoebus -40 ~ 85° C design-in, operates continuously under -40 ~ 85° C for at least 8 hrs.

For details, please visit <http://www.advantech.com.tw/epc/RuggedizedSolutions/>

### Optional Accessories

- **PCD-USBH1-MS0256** USB-DOM, 256 MB, -40 ~ 85° C
- **PCD-USBH1-MS0512** USB-DOM, 512 MB, -40 ~ 85° C
- **PCD-USBH1-MS1024** USB-DOM, 1 GB, -40 ~ 85° C
- **PCD-USBH1-MS2048** USB-DOM, 2 GB, -40 ~ 85° C
- **IDE to CF module** (p/n: 9696290100)
- **PCM-410A-00A1E** AC 97 Audio/USB module for PCM-4380/4386 series
- **PCM-410C-00A1E** COM/LPT daughter board for EPIC