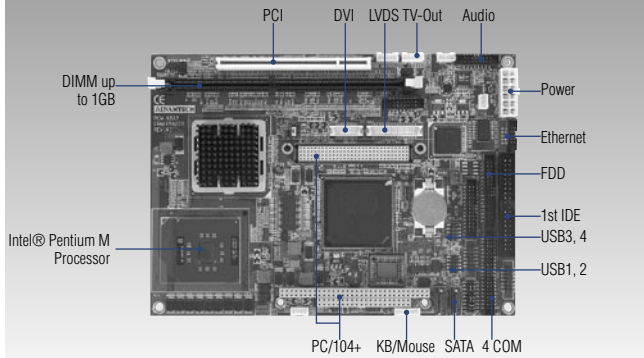


# PCM-4582

Phoebus (-40 ~ 85° C) Design,  
Onboard Intel® Pentium® M  
EBX SBC with Audio, VGA/LCD

**NEW**



## Specifications

### General

- **CPU** Embedded Intel Pentium M/Celeron M Processor supported  
Celeron M 600 MHz (512 KB) PCM-4582FY-M0A1E  
Celeron M 1.0 GHz (512 KB) PCM-4582FY-S0A1E  
Pentium M 1.4 GHz (2 MB) PCM-4582FY-S4A1E
- **2nd Cache Memory** Depends on CPU type from 512 KB to 2 MB
- **System Chipset** Intel 855GME GMCH/ 6300ESB Chipset
- **BIOS** AWARD® 512 kbit Flash BIOS
- **System Memory** 200-pin DIMM socket, support ECC Double Data Rate (DDR) 128 MB to 1 GB, accept 128/256/512/1024 MB DR200/266/333 DRAM
- **Power Management** APM1.2, ACPI support
- **SSD** Supports CompactFlash® Card TYPE I/II (shared 2nd IDE Channel)
- **Watchdog Timer** Winbond W83627, 255-level interval timer, setup by SMSC SCH3114
- **Expansion Interface** Supports PC/104 (Low Pin Count), PC/104-Plus and Mini PCI interface
- **Battery** Lithium 3 V/196 mAh

### I/O

- **I/O Interface** 2 x EIDE (UDMA 100), 2 x SATA 150, 1 x FDD, 1 x K/B, 1 x Mouse, 3 x RS232, 1 x RS232/422/422/485, 1 x LPT
- **USB** 4 x USB 2.0 compliant Ports
- **Audio** ALC650 AC97 3D surround stereo sound  
Supports Speaker-out, CD-input, Line-in, Line-out, Microphone
- **IrDA** -
- **GPIO** 8-bit general purpose input/output

### Ethernet

- **Chipset** Intel 82551ER optional 82541PI (Gigabit)
- **Speed** 10/100 Mbps; 10/100/1000 Mbps (optional)
- **Interface** 1 x RJ45 by cable
- **Standard** IEEE 802.3u 100Base-T and IEEE 802.3z/ab 1000Base-T compatible

## Features

- Phoebus (-40 ~ 85° C) design , fanless solution
- Embedded Intel® Pentium® M 1.4 GHz/Intel Celeron® M 600 MHz
- Supports ECC DDR Memory
- EBX form factor standard and support for PC/104-Plus bus
- Supports up to 1000Base-T Ethernet
- Supports four ports Host USB 2.0
- Supports up to two channel 48-bit LVDS interface
- Supports Enhanced Intel Speedstep Technology

### Display

- **Chipset** Intel 855GME chip integrated. (Extreme Graphics 2)
- **Memory Size** Optimized Shared Memory Architecture, supports up to 32 MB frame buffer using system memory
- **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-bit) LVDS
- **LVDS** Hirose connector support up to 2 channel (2 x 18-bit) LVDS LCD Panel
- **TV-Out (Cable optional)** Supports both NTSC/PAL, S-video and Composite Video
- **Dual Independent Display** CRT + 48-bit LVDS; DVI/TV-out + 48-bit LVDS; CRT + DVI

### Mechanical and Environmental

- **Dimension (L x W)** 203 x 146 mm (8" x 5.75")
- **Weight** 0.85 kg (weight of total package)
- **Operating Temperature** -40 ~ 85° C (-104 ~ 185° F)
- **Operating Humidity** 0% ~ 90% relative humidity, non-condensing
- **Storage Temperature** -40 ~ 85° C
- **Storage Humidity** 95% @ 60° C

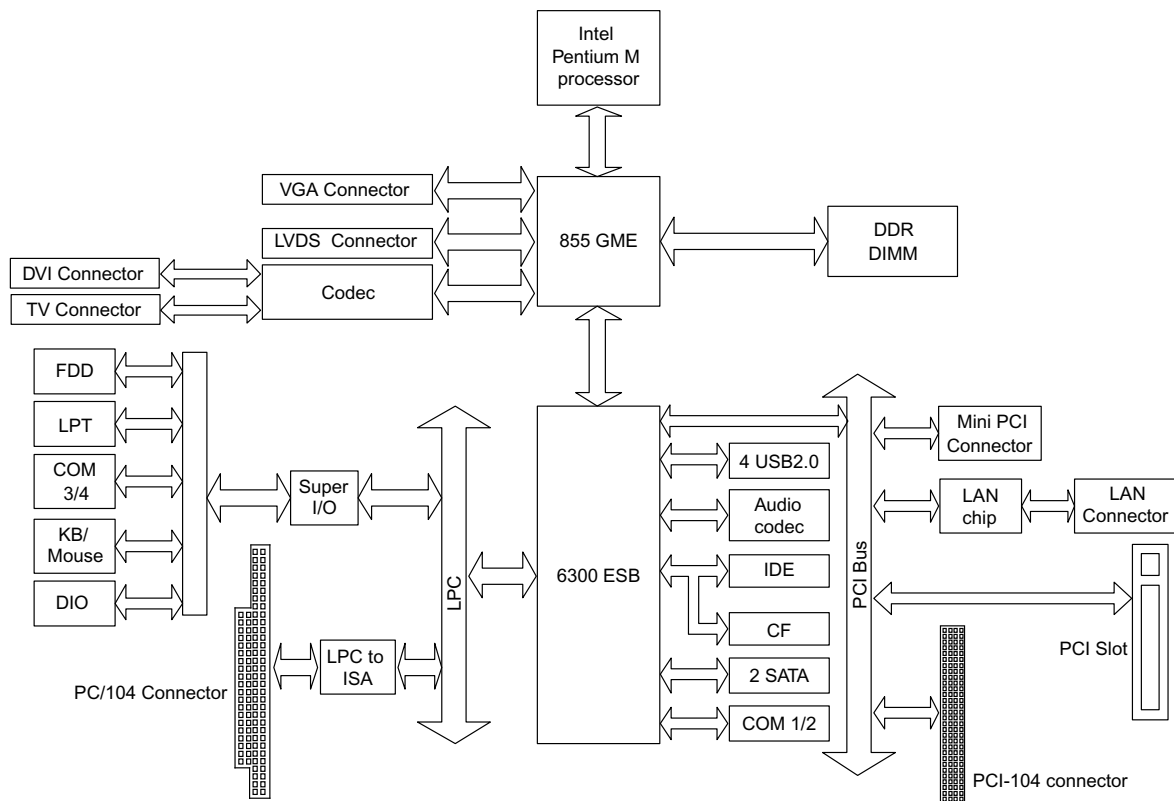
### Power

- **Power Supply Voltage** +5 V ± 5%, +12 V ± 5%
- **Power Consumption** (Celeron M 600 with 256 MB DDR266)  
Max(HCT): 2.63 A @ 5 V, 0.04 A @ 12 V  
Typical: 2.1 A @ 5 V, 0.03 A @ 12 V  
(Pentium M 1.1 G with 256 MB DDR266 )  
Max (HCT): 3.1 A @ 5 V, 0.15 A @ 12 V  
Typical: 2.3 A @ 5 V, 0.13 A @ 12 V  
(Pentium M 1.6G with 1.6 GHz with 256 MB)  
Max (HCT): 4.8 A @ 5 V, 0.15 A @ 12 V  
Typical: 2.54 A @ 5 V, 0.14 A @ 12 V

## Packing List

- 1 x PCM-4582 SBC
- 1 x Mini Jumper Pack (p/n:9689000002)
- 1 x Startup Manual
- 1 x Utility CD
- 1 x ATX Power Cable (p/n:1700001112)

## Board Diagram



## Ordering Information

Part No.	CPU	L2 Cache	CRT	LVDS	DVI	TV-out	10/100	Giga LAN	Audio	USB2.0	RS-232	RS-232/422/485	LPT/FDD/KB/MS	CF	SATA	PCI-104 connector	PC/104 connector	PCI Slot	Mini PCI	Thermal Solution	Operation Temp.
PCM-4582FY-S4A1E	LV Pentium M 1.4 GHz	2 MB	Yes	36-bit	Yes	Yes	1	Optional	Yes	4	3	1	Yes	Yes	2	Yes	Yes	1	1	Passive	-40 ~ 85° C
PCM-4582FY-S0A1E	Celeron M 1.0 GHz	512 KB	Yes	36-bit	Yes	Yes	1	Optional	Yes	4	3	1	Yes	Yes	2	Yes	Yes	1	1	Passive	-40 ~ 85° C
PCM-4582FY-M0A1E	Celeron M 600	512 KB	Yes	36-bit	Yes	Yes	1	Optional	Yes	4	3	1	Yes	Yes	2	Yes	Yes	1	1	Passive	-40 ~ 85° C

### Optional Accessories

- **PCM-10586-6200E** Wiring kit for PCM-9582 / PCM-9587 / PCM-4582
- **1703050306** TV-out cable
- **1703100260** USB cable (26 cm)
- **1703100121** USB cable (12 cm)
- **PCM-110-00A3E** 1-slot PCI riser card for 5.25" biscuits
- **PCM-120-00A3E** 2-slot PCI riser card for 5.25" biscuits
- **PCM-200-00A2E** PCI-104 to PCI bus module
- **MIO-3110-00A1E** Mini PCI to USB interface connection hub
- **MIO-3120-00A1E** Mini PCI interface to Wireless 802.11 b/g communication module
- **MIO-3121-00A1E** Mini PCI to 4 COM Module
- **MIO-3140-00A1E** Mini PCI interface to SATA storage module
- **MIO-3150-00A1E** Mini PCI interface to video capture module