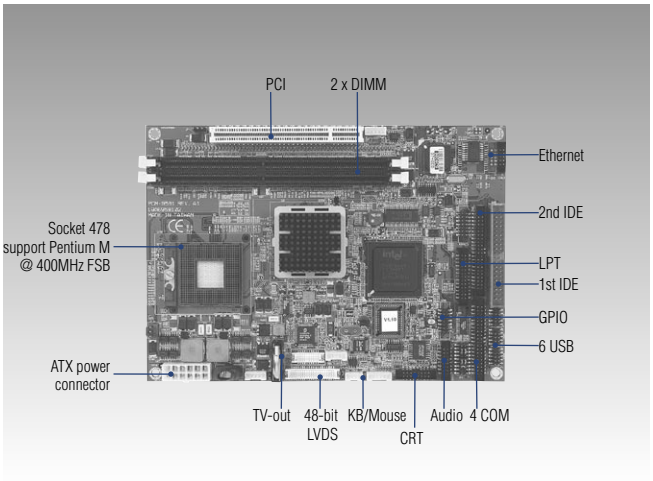
PCM-9581

Onboard Intel® Pentium® M SBC with Audio, VGA/LCD



Features

- Embedded Intel® Pentium® M 1.1 GHz, 1.6 GHz (optional)/Intel® Celeron® M 600 MHz
- Support ECC DDR Memory
- With Vcore 2 phase design for more stable system design
- Supports up to 1000Base-T Ethernet
- Supports 6 ports Host USB 2.0
- Supports up to 2 channel 48-bit LVDS interface
- Supports Enhanced Intel Speedstep® Technology

CE FCC

Specifications

General

- **CPU**: Embedded Intel Pentium M (Banias/Dothan)/Celeron M
  Celeron M Processor supported
  Celeron M 600 MHz (512 KB) PCM-9581F-M0A1
  Pentium M 1.1 GHz PCM-9581F-S0A1, PCM-9581FG-S0A1
  uFCPGA2 (478 pin) PCM-9581F-00A1, PCM-9581FG-00A1
  Optional:
  Penitum M 745 1.8 GHz @ 400 MHz FSB
  Pentium M 1.6 GHz @ 400 MHz FSB
- **2nd Cache Memory**: Depends on CPU type from 512 KB to 2 MB
- **System Chipset**: Intel 855GME GMCH/ICH4 Chipset
- **BIOS**: AWARD 512 kbit Flash BIOS
- **System Memory**: 2 x 184 pin DIMM sockets, support ECC Double Data Rate (DDR)128 MB to 2 GB, accepts 128/256/512/1000 MB DR200/266/333 DRAM
- **Power Management**: APM 1.2, ACPI Support
- **SSD**: Supports CompactFlash Card TYPE I/II (shared 2nd IDE Channel)
- **WatchDog Timer**: 255-level timer interval, from 15 sec to 14835 sec, setup by software, jumperless selection, generates system reset
- **Expansion Interface**: Supports a PCI2.2 with 32-bit/33 MHz slot and Mini PCI interface
- **Battery**: Lithium 3 V/196 mAH

I/O

- **I/O Interface**: 2 x EIDE (UDMA 100), 1 x FDD (optional), 1 x K/B, 1 x Mouse, 3 x RS232, 1 x RS232/422/485,1 x LPT
- **USB**: 6 USB 2.0 compliant ports
- **Audio**: ICH4 chip. AC97 3D surround stereo sound
  Supports Speaker out, CD-input, Line -in, Line-out, Microphone
- **IrDA**: SIR115 kbps, IrDA 1.1 Compliant
- **GPIO**: 8-bit general purpose input/output

Ethernet

- **Chipset**: Intel 82551ER, optional 82551QM, 82541GI (Gigabit)
- **Speed**: 10/100 Mbps (PCM-9581F),
  10/100/1000 Mbps (PCM-9581FG)
- **Interface**: RJ45 by cable
- **Standard**: IEEE 802.3u 100Base-T and IEEE 802.3z/ab 1000Base-T compatible
  Built-in boot ROM in Flash BIOS

Display

- **Chipset**: Intel 855GME chip integrated. (Extreme Graphics 2)
- **Memory Size**: Optimized Shared Memory Architecture, supports up to 64 MB/8 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 support up to UXGA panel resolution with frequency range from 25 MHz to 112 MHz
- **LCD Interface**: 2 Channel (2 x 24 -bit) LVDS
- **LVDS**: Hirose connector supports up to 2 channel (48-bit) LVDS LCD Panel
- **TV-Out (Cable optional)**: Supports both NTSC/PAL, S-video and Composite Video
- **Dual Independent Display**: CRT + LVDS

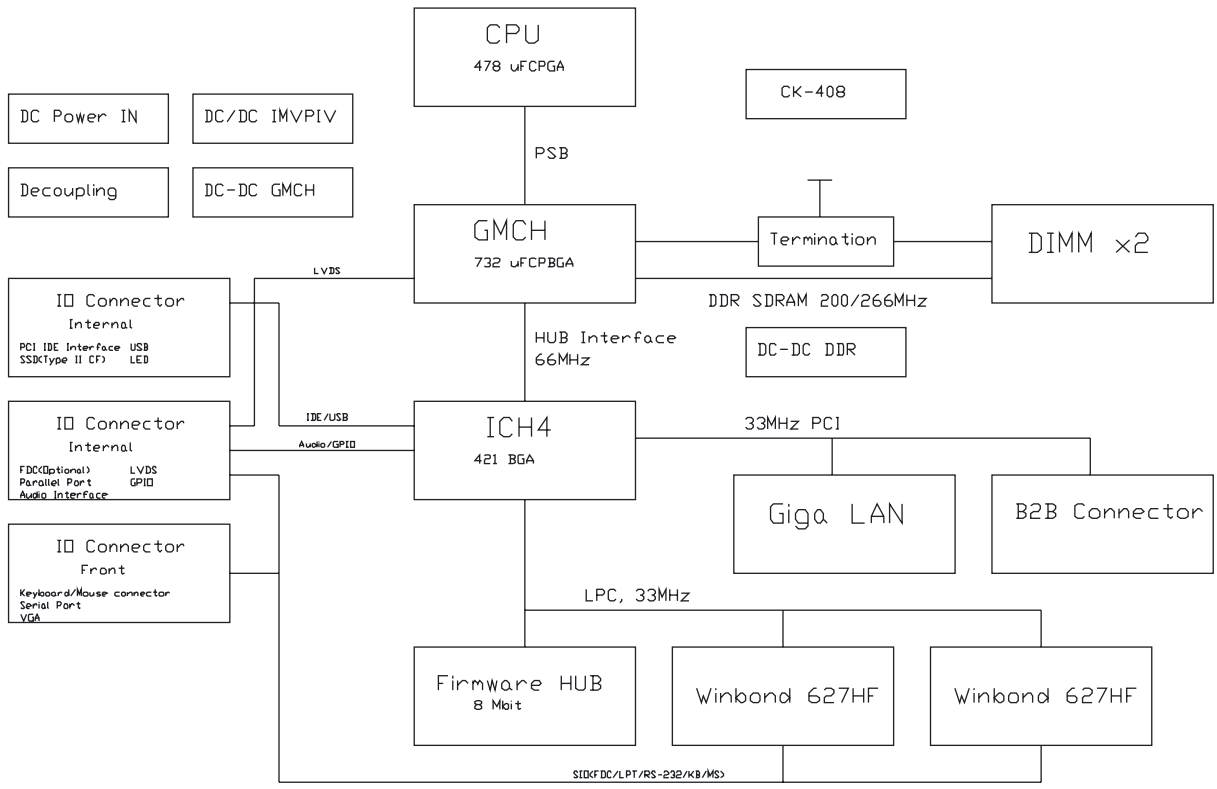
Mechanical and Environmental

- **Dimension (L x W)**: 203 mm x 146 mm (8" x 5.75")
- **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**: +5 V ± 5%, +12 V ± 5%
- **Power Consumption**: (Pentium M 1.6 G, 256 M DDR 300)
  Max: +5 V @ 3.8 A, +12 V @ 0.4 A
  Average: +5 V @ 3.22 A, +12 V 0.2 A

Board Diagram



Packing List

- **1 x PCM-9581 SBC**
- **1 x Mini Jumper Pack** (p/n:9689000002)
- **1 x Startup Manual**
- **1 x Utility CD**
- **1 x ATX Power Cable** (p/n:1700000265)

Ordering information

Standard

- **PCM-9581F-00A1** uFCPGA2 478 855GME/Audio/VGA/LCD/CFC
- **PCM-9581F-S0A1** Same as PCM-9581F-00A1 with on board Pentium M 1.1 GHz
- **PCM-9581FG-00A1** Same as PCM-9581F-00A1, but with Gigabit Ethernet
- **PCM-9581FG-S0A1** Same as PCM-9581FG-S0A1, but with Gigabit Ethernet
- **PCM-9581F-M0A1** Same as PCM-9581F-00A1 w/ Celeron M 600 (512 K)

Optional Accessories

- **PCM-10586-6100** Wiring kit for PCM-9581F/9586
- **PCM-10586-6A00** Wiring kit for PCM-9581FG
- **CF-HDD-ADP** CompactFlash 50 pin to IDE 44-pin adapter
- **1703050306** TV-out cable
- **1703100260** USB cable (26 cm)
- **1703100121** USB cable (12 cm)