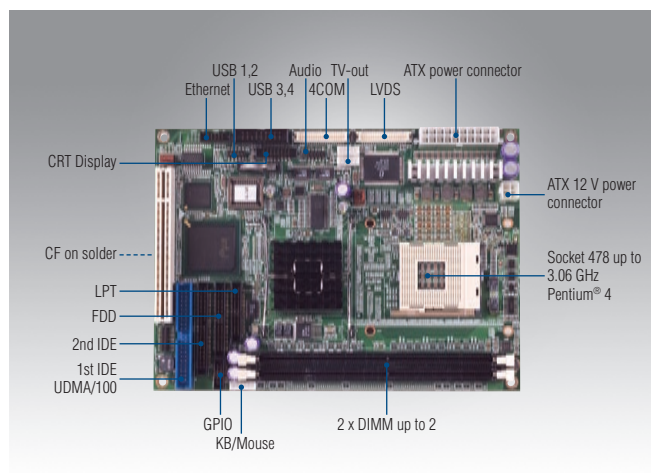


# PCM-9580

**Socket 478 Intel® Pentium® 4 SBC**  
**w/GbE LAN, USB 2.0, VGA/LVDS and 4 COM**



## Features

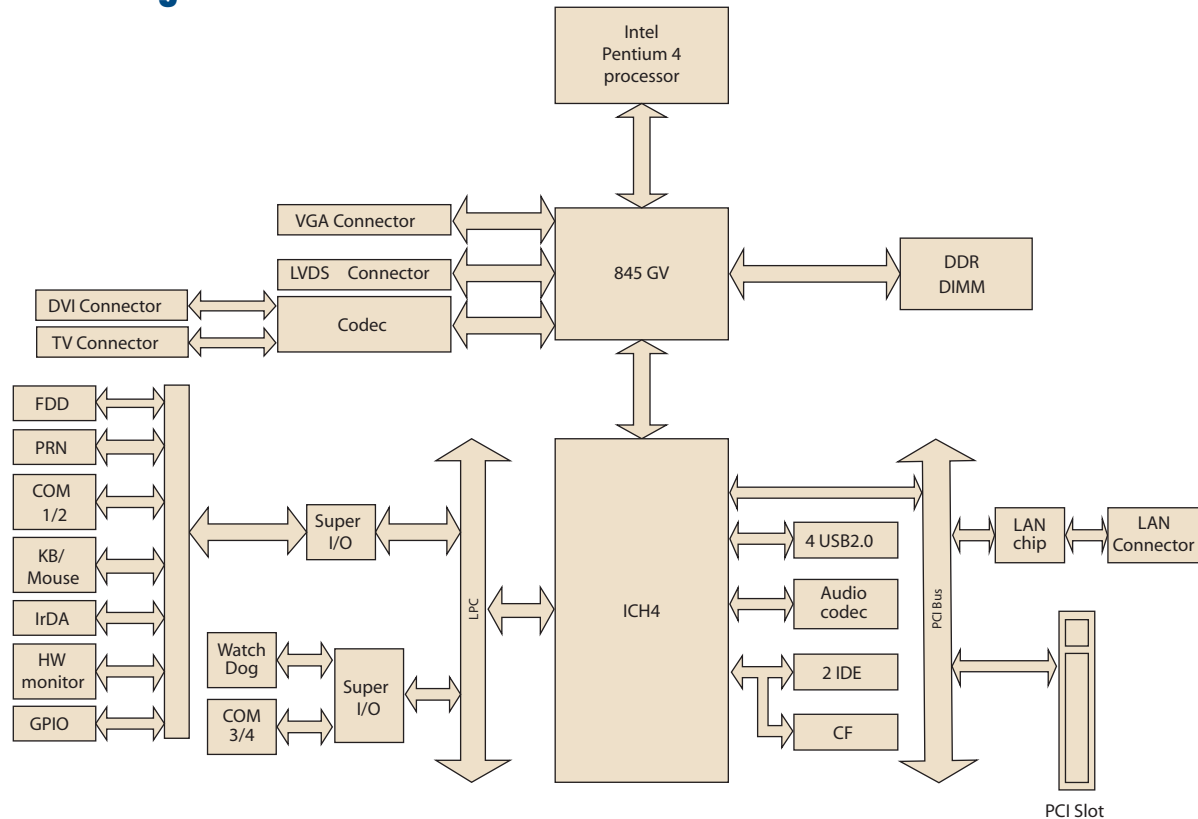
- Socket 478 up to 3.06 GHz Intel® Pentium® 4 (0 ~ 60° C)
- Two 184-pin DIMM sockets, support 128 MB to 2 GB, accepts 128/256/512/1024 MB DDR200/266/333 DRAM
- Supports Gigabit Ethernet (PCM-9580FG)
- Supports Embedded USB, four USB 2.0 ports
- Supports 2-channel 48-bit LVDS interface
- Optional Audio Interface



## Specifications

|                          |                                     |                                                                                                                                                                                                     |
|--------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Processor System         | CPU                                 | Socket 478 for Intel Celeron/Pentium 4 up to 3.06 GHz                                                                                                                                               |
|                          | Front Side Bus                      | 400/533 MHz                                                                                                                                                                                         |
|                          | L2 Cache                            | 512 KB ~ 1 MB                                                                                                                                                                                       |
|                          | Chipset                             | Intel 845GV (845GV GMCH + ICH4)                                                                                                                                                                     |
|                          | BIOS                                | Award 4 Mbit                                                                                                                                                                                        |
| Memory                   | Technology                          | DDR 200/266/333                                                                                                                                                                                     |
|                          | Max. Capacity                       | 2 GB                                                                                                                                                                                                |
|                          | Socket                              | 2 x 184-pin DIMM                                                                                                                                                                                    |
| SSD                      | CompactFlash                        | Card Type I, Type II                                                                                                                                                                                |
| I/O Interface            | LPT                                 | 1                                                                                                                                                                                                   |
|                          | FDD                                 | 1                                                                                                                                                                                                   |
|                          | RS-232                              | 3                                                                                                                                                                                                   |
|                          | RS-232/422/485                      | 1                                                                                                                                                                                                   |
|                          | K/B                                 | 1                                                                                                                                                                                                   |
|                          | Mouse                               | 1                                                                                                                                                                                                   |
|                          | USB                                 | 4 x USB 2.0                                                                                                                                                                                         |
|                          | Audio                               | AC97, Optional PCM-231A supports Line-in, Line-out, MIC-in, CD-in, Line-out, Speaker-out                                                                                                            |
| EIDE                     | GPIO                                | 8-bit general purpose Input/Output; 4-bit input, 4-bit output                                                                                                                                       |
|                          | Mode                                | UDMA 100                                                                                                                                                                                            |
| Expansion Slot           | Channel                             | 2                                                                                                                                                                                                   |
|                          | PCI                                 | 1                                                                                                                                                                                                   |
| Ethernet                 | Speed                               | 10/100Mbps (PCM-9580F); 10/100/1000Mbps (PCM-9580FG)                                                                                                                                                |
|                          | Controller                          | Intel 82551ER [Intel 82551QM optional (PCM-9580F)]<br>Intel® 82541PI (PCM-9580FG)                                                                                                                   |
|                          | Interface                           | RJ-45 by cable                                                                                                                                                                                      |
| Display                  | Controller                          | Intel 845GV + Chrontel CH7017                                                                                                                                                                       |
|                          | VRAM                                | Up to 32 MB frame buffer using system memory                                                                                                                                                        |
|                          | LVDS LCD                            | 1 x 48-bit LVDS                                                                                                                                                                                     |
| Environment              | TV-Out                              | Supports both NTSC/PAL, S-video or Composite Video, support by CH7017                                                                                                                               |
|                          | Operation Temperature               | 0 ~ 60° C (32 ~ 140° F) for Pentium 4 up to 3.06 GHz                                                                                                                                                |
|                          | Operating Humidity                  | 0% ~ 90% relative humidity, non-condensing                                                                                                                                                          |
| Power                    | Power Type                          | ATX                                                                                                                                                                                                 |
|                          | Power Supply Voltage                | +5 V ±5%, +12 V ± 5%, +3.3 V ± 5%                                                                                                                                                                   |
|                          | Power Consumption: Typical          | Typical : +12 V_CPU @ 1.95 A, +5 V @ 0.37 A, +3.3 V @ 3.2 A, +12 V @ 0.1 A                                                                                                                          |
|                          | Power Consumption: Max, test in HCT | Max: +12 V_CPU @ 6.15 A, +5 V @ 0.41 A, +3.3 V @ 3.46 A, +12 V @ 0 A. (In HCT) +12 V_CPU @ 5.62 A, +5 V @ 0.41 A, +3.3 V @ 4.28 A, +12 V @ 0.11 A (QAPLUS) (With 1 GB DDR DRAM, Pentium 4 3.06 GHz) |
|                          | Power Management                    | APM, ACPI                                                                                                                                                                                           |
|                          | Battery                             | Lithium 3 V / 196 mAH                                                                                                                                                                               |
| Watchdog Timer           | Output                              | System reset                                                                                                                                                                                        |
|                          | Interval                            | Programmable 1 ~ 255 sec                                                                                                                                                                            |
| Physical Characteristics | Dimensions (L x W)                  | 203 x 146 mm (8" x 5.75")                                                                                                                                                                           |
|                          | Weight                              | 0.85 kg (1.87 lb) (weight of total package)                                                                                                                                                         |

## Board Diagram



## Ordering Information

| Part No.         | CPU        | L2 Cache | CRT | LVDS   | TV out | 10/100 | Giga LAN | Audio | USB2.0 | RS-232 | RS/232/422/485 | LPT/FDD/KB/MS | CF  | PCI Slot | Operation Temp. |
|------------------|------------|----------|-----|--------|--------|--------|----------|-------|--------|--------|----------------|---------------|-----|----------|-----------------|
| PCM-9580F-00A2E  | Socket 478 | --       | Yes | 48-bit | Yes    | 1      | --       | Yes   | 6      | 3      | 1              | Yes           | Yes | 1        | 0 ~ 60° C       |
| PCM-9580FG-00A2E | Socket 478 | --       | Yes | 48-bit | Yes    | --     | 1        | Yes   | 6      | 3      | 1              | Yes           | Yes | 1        | 0 ~ 60° C       |

## Optional Accessories

| Part No.        | Description                                  |
|-----------------|----------------------------------------------|
| PCM-10586-6000E | Wiring Kit for PCM-9580F                     |
| PCM-10586-6G00E | Wiring Kit for PCM-9580FG (Gigabit LAN)      |
| PCM-231A-00A1   | Audio out module                             |
| 1703100121      | USB cable 12 cm                              |
| 1703100260      | USB cable (26 cm)                            |
| 1759214200      | Pentium 4 CPU cooler with fan for 1U chassis |
| PCM-110-00A3E   | 1-slot PCI riser card for 5.25" biscuits     |
| PCM-120-00A3E   | 2-slot PCI riser card for 5.25" biscuits     |

## Packing List

| Part No.   | Description                       | Quantity |
|------------|-----------------------------------|----------|
|            | PCM-9580 SBC                      | 1        |
| 9689000002 | Mini Jumper Pack (conts.: 10 pcs) | 1        |
|            | Startup Manual                    | 1        |
|            | Utility CD                        | 1        |