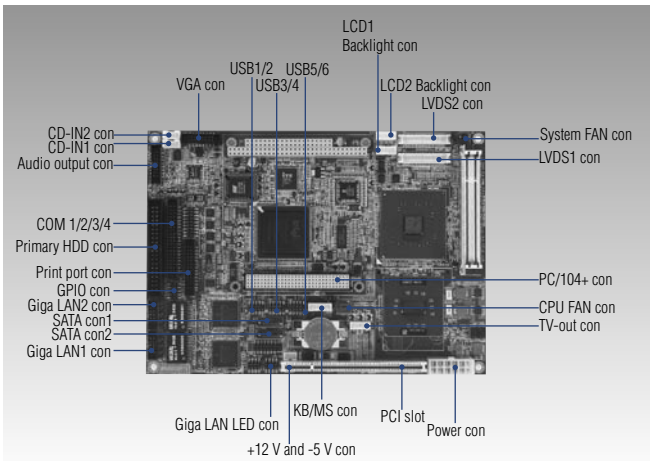
PCM-9584

Onboard Intel® Pentium® M EBX SBC with Audio, VGA/2 LVDS and LAN



Features

- Embedded Dothan CPU (2 MB L2 cache), Intel® Celeron® M 90 nm and Pentium® M
- Supports 533 MHz DDR2 SODIMM
- Supports Dual LCD (36-bit LVDS + 48-bit LVDS)
- Supports two Ethernet up to 10/100/1000 Mbps
- Supports six USB 2.0 ports
- Supports four COMs
- PC/104-Plus Supported
- Extended temperature optional

Specifications

General

CPU	Embedded Intel Pentium M (Banias/Dothan)/Celeron M Processor supported Pentium M 2.0 GHz PCM-9584FG-U0A1E Pentium M 1.4 GHz PCM-9584FG-S4A1E Celeron M 1.0 GHz PCM-9584FG-S0A1E uFCPGA2 (478pin) PCM-9584FG-00A1E
2nd Cache Memory	Depends on CPU from 512KB to 2 MB
System Chipset	Intel 915 GM GMCH/ICH6M Chipset
BIOS	AWARD® 512 kbit Flash BIOS
System Memory	2 x 200-pin SODIMM sockets, Double Data Rate (DDR2) 128 MB to 2 GB, accept 128/256/512/1024 MB DDR2 up to 400/533 DRAM
Power Management	APM1.2, ACPI support
SSD	Supports CompactFlash® Card TYPE I/II (shared 2nd IDE Channel) /USB-DOM (option)
Watchdog Timer	255-level interval timer, setup by software, Super I/O integrated, SMSC Controller
Expansion Interface	Supports PCI 104, Mini PCI interface , 1 x PCI Slot, and 8-bit PC/104 ISA Connector
Battery	Lithium 3 V/196 mAH

I/O

I/O Interface	1 x EIDE (UDMA 100), 2 x SATA 150, 1 x K/B, 1 x Mouse, 3 x RS232, 1 x RS232/422/485, 1 x LPT
USB	6 x USB 2.0 compliant Ports
Audio	AC97 Audio codec ALC 650 Supports Speaker out, CD-input, Line-in, Line-out, Microphone
IrDA	-
GPIO	8-bit general purpose 4 input/4 output

Ethernet

Chipset	2 x BroadCOM BCM5721
Speed	10/100/1000 Mbps
Interface	1 x RJ45 by cable
Standard	IEEE 802.3u 100Base-T & IEEE 802.3ab 1000Base-T

Display

Chipset	Intel 915GM chip integrated. (Extreme Graphics 2)
Memory Size	Optimized Shared Memory Architecture, supports up to 128 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 LVDS 1 (36-bit), LVDS 2 (48-bit)
LVDS	Hirose connector support up to 2 channel (1 x 48/1 x 36-bit) LVDS LCD Panel
Dual Ind. Display	CRT + 48-bit LVDS; CRT + TV-Out; LVDS + TV-Out under Windows system 36-bit LVDS (915 GM) + 48-bit LVDS (Chrontel) LCD Panel

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	0 ~ 60° C (32 ~ 140° F)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
Storage Temperature	-20 ~ 70° C (accessories Storage temperature: -20 ~ 60° C)
Storage Humidity	95% @ 60° C

Power

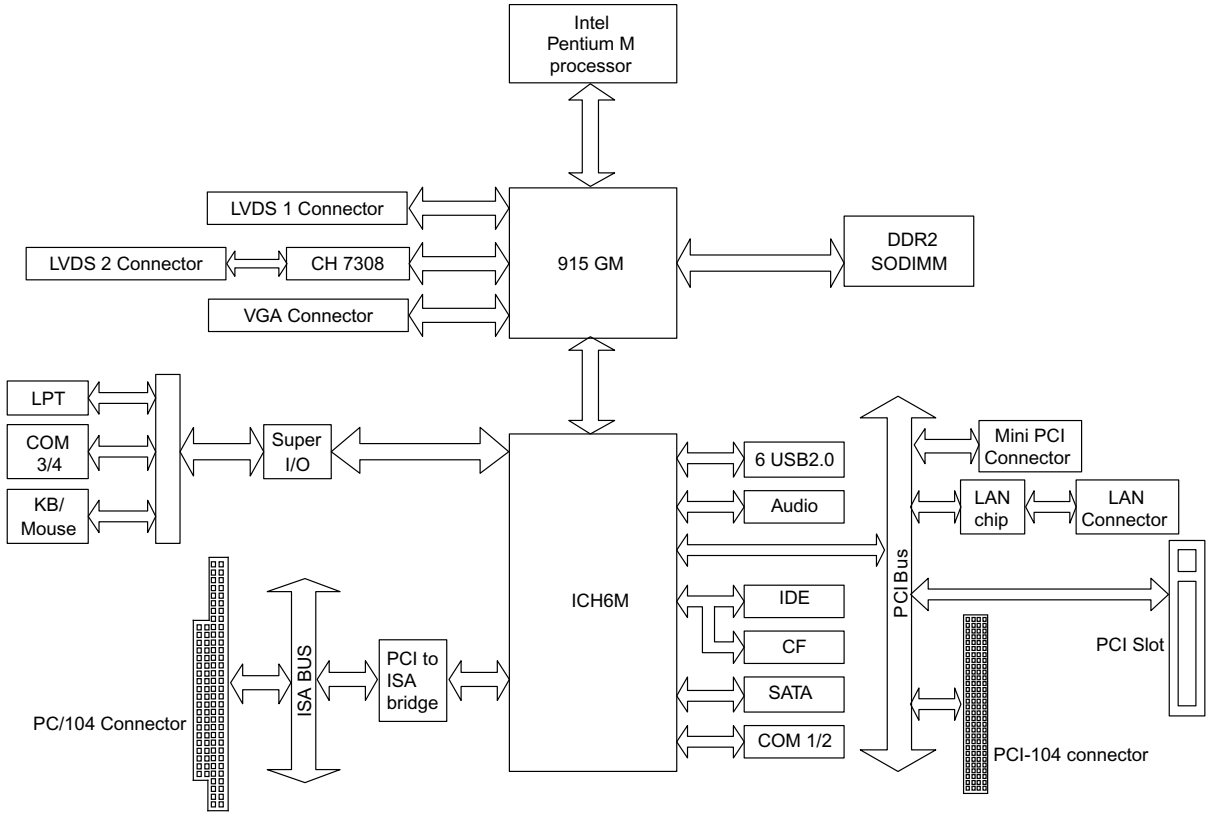
Power Supply Voltage	+5 V ±5%, +12 V ±5%
Power Consumption	(Pentium M with 1.4 GHz) Max (HCT): 2.42 A @ 5 V, 1.01 A @ 12 V Suspend: 1.86 A @ 5 V, 0.48 A @ 12 V (Pentium M with 2.0 GHz) Max (HCT): 2.43 A @ 5 V, 1.65 A @ 12 V Suspend: 1.87 A @ 5 V, 0.75 A @ 12 V

Packing List

- **1 x PCM-9584 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)

All product specifications are subject to change without notice

Board Diagram



Ordering Information

Part No.	CPU	L2 Cache	Chipset	SDRAM DIMM	CRT	LVDS1	LVDS2	10/100	Giga LAN	Audio	USB 2.0	RS-232	RS-232/ 422/485	LPT	FDD	CF	USB-DOM	KB/ MS	PCI Slot	Mini PCI	Thermal Solution	Operation Temp.
PCM-9584FG-00A1E	Socket 479	--	915 GM	2	Yes	36-bit	48-bit	--	2	Yes	6	3	1	Yes	--	Yes	Yes	Yes	1	1	Active	0 ~ 60° C
PCM-9584FG-S0A1E	Celeron M 1.0 GHz	512 KB	915 GM	2	Yes	36-bit	48-bit	--	2	Yes	6	3	1	Yes	--	Yes	Yes	Yes	1	1	Passive	0 ~ 60° C
PCM-9584FG-S4A1E	Pentium M 1.4 GHz	2 MB	915 GM	2	Yes	36-bit	48-bit	--	2	Yes	6	3	1	Yes	--	Yes	Yes	Yes	1	1	Passive	0 ~ 60° C
PCM-9584FG-U0A1E	Pentium M 2.0 GHz	2 MB	915 GM	2	Yes	36-bit	48-bit	--	2	Yes	6	3	1	Yes	--	Yes	Yes	Yes	1	1	Active	0 ~ 60° C
PCM-9584Z-S4A1E	Pentium M 1.4 GHz	2 MB	915 GM	2	Yes	36-bit	48-bit	--	2	Yes	6	3	1	Yes	--	Yes	Yes	Yes	1	1	Passive	-20 ~ 80° C

Optional Accessories

- **PCM-10586-9584E Wiring kit for PCM-9584**
- **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