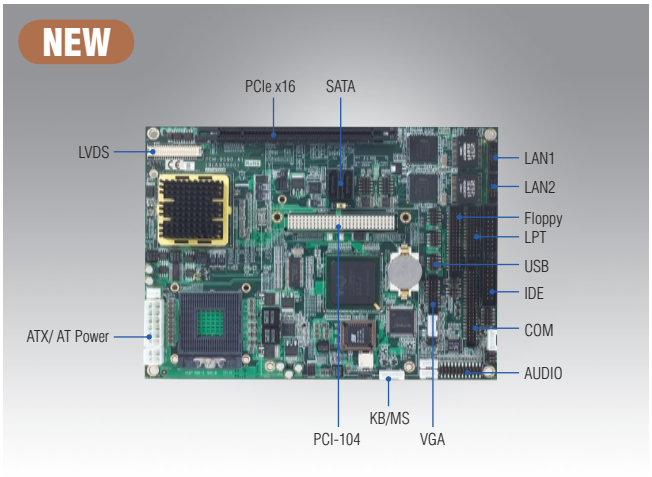
PCM-9590

Intel® Core™ 2 Duo EBX SBC with VGA/ LVDS /Dual GbE LAN/ Audio/ PCI-104



Features

- Intel® Core™ 2 Duo CPU (2 MB L2 cache)
- Up to 4 GB DDR2 SODIMM (support FSB 533/667 MHz)
- Integrated Intel® Graphics Media Accelerator (GMA) 950
- Dual independent display (CRT + LVDS1, CRT + LVDS2, LVDS1 + LVDS2)
- Dual Giga Ethernet (10/100/1000 Mbps)
- One PCI-104, one PCIe x16, one mini PCI
- 6 USB 2.0 ports, 4 COM ports, 16 bit GPIO

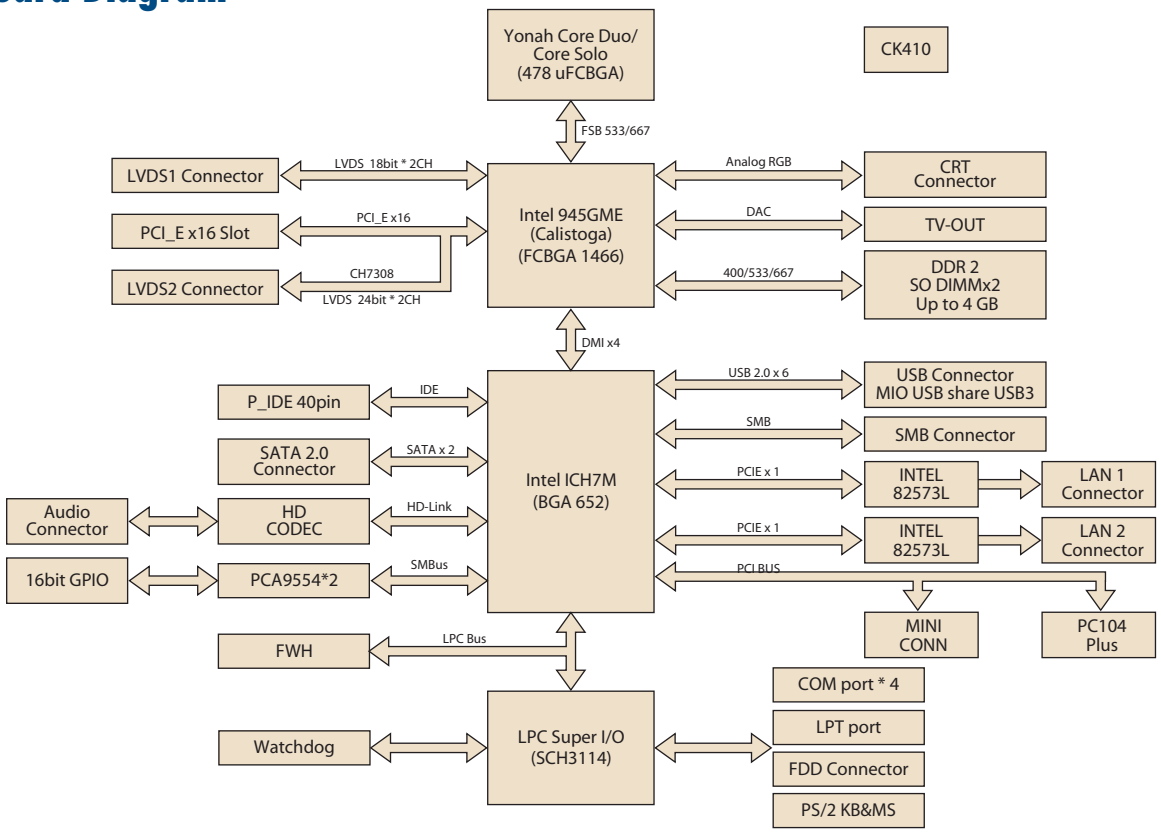
RoHS COMPLIANT 2002/95/EC · Windows Embedded · CE FCC

Specifications

Processor System	CPU	Core Duo 1.2 GHz	Core Duo 1.66 GHz	Core™ 2 Duo Mobile T7400 2.16 GHz (Socket type)
	Front Side Bus	533/667 MHz	533/667 MHz	533/667 MHz
	L2 Cache	2 MB	2 MB	4 MB
	Chipset	Intel 945GME + ICH7M	Intel 945GME + ICH7M	Intel 945GME + ICH7M
	BIOS	Award 4 Mbit	Award 4 Mbit	Award 4 Mbit
Memory	Technology	DDR2 400/533/667		
	Max. Capacity	4 GB		
	Socket	2 x 200-pin SODIMM		
SSD	CompactFlash	-		
I/O Interface	LPT	1		
	RS-232	3		
	RS-232/422/485	1		
	K/B	1		
	Mouse	1		
	USB	6 x USB 2.0		
	Audio	HD Audio, supports 7.1 channel: CD-input, Line-in, Line-out, Mic-in		
	GPIO	16-bit general purpose input/output		
	SMBus	Supported		
SATA	Max. Data Transfer Rate	150		
	Channel	2		
EIDE	Mode	UDMA 100		
	Channel	1		
Expansion Slot	PCIe	1 x PCIe x16		
	Mini PCI	1		
	PCI-104	1		
Ethernet	Speed	10/100/1000 Mbps		
	Controller	2 x Intel 82573L		
	Interface	2 x RJ-45 by cable		
Display	Controller	Intel 945GME		
	VRAM	Optimized Shared Memory Architecture up to 224 MB system memory		
	LVDS LCD	LVDS1 (36 bit), LVDS2 (48 bit optional)		
	Dual Independent Display	CRT+LVDS1, CRT+LVDS2, LVDS1 + LVDS2 (by IEGD driver): LVDS2 is optional		
Environment	Operation Temperature	0 ~ 60° C (32 ~ 140° F)		
	Operating Humidity	0% ~ 90% relative humidity, non-condensing		
Power	Power Type	AT / ATX		
	Power Supply Voltage	ATX, +5 V ± 5%, ±12 V ± 5% (For PCI Card, FAN power, and LVDS inverter power, CPU core power) AT, +5 V ± 5%, ±12 V ± 5% (For PCI Card, FAN power, and LVDS inverter power, CPU core power)		
	Power Consumption: Typical (XP)	Suspend: 1.01 A @ 5 V, 0.76 A @ 12 V (CPU U2500 1.2 GHz)		
	Power Consumption: Max, test in HCT	1.05 A @ 5 V, 0.98 A @ 12 V (CPU U2500 1.2 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)		

All product specifications are subject to change without notice
Last updated : 1-July-2009

Board Diagram



Ordering Information

Part No.	CPU	L2 Cache	DDR2 SODIMM	CRT	LVDS1	LVDS2	GigaLAN	Audio	USB2.0	RS-232	RS/232/422/485	LPT	PCIe x16 Slot	MIO Type I	Mini PCI	Thermal Solution	Operation Temp.
PCM-9590FG-00A2E	Socket 478	-	2	Yes	36-bit	48bit (Optional)	2	Yes	6	3	1	Yes	1	Yes	1	Active	0 ~ 60° C
PCM-9590FG-S2A2E	Core Duo 1.2 GHz	2 MB	2	Yes	36-bit	48bit (Optional)	2	Yes	6	3	1	Yes	1	Yes	1	Passive	0 ~ 60° C
PCM-9590FG-S6A2E	Core Duo 1.66 GHz	2 MB	2	Yes	36-bit	48bit (Optional)	2	Yes	6	3	1	Yes	1	Yes	1	Active	0 ~ 60° C

Optional Accessories

Part No.	Description
PCM-10586-9590E	Wiring kit for PCM-9590
1703100260	USB cable (26 cm)
1703100121	USB cable (12 cm)
1700006200	AT Power Cable 6 x 2P to 10 x 2P 100 mm PCM-9590
PCM-110-00A3E	1-slot PCI riser card for 5.25" biscuits
PCM-200-00A2E	PCI-104 to PCI bus module
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
MIO-3130-00A1E	Mini PCI Interface to Dual LAN Communication Module§
MIO-3131-00A1E	Mini PCI Interface to Single Giga LAN Communication Module

Packing List

Part No.	Description	Quantity
	PCM-9590 SBC	1
9689000002	Mini Jumper Pack	1
	Startup Manual	1
	Utility CD	1
1700000265	ATX Power Cable	1
170304015K	12V for CPU Big4P x 2 power cable	1
	Cooler 51 x 51x 40 mm (PCM-9590FG-00A2E only)	1
	heatsink 50 x 50 x 30 mm (PCM-9590FG-S2A2E only)	1