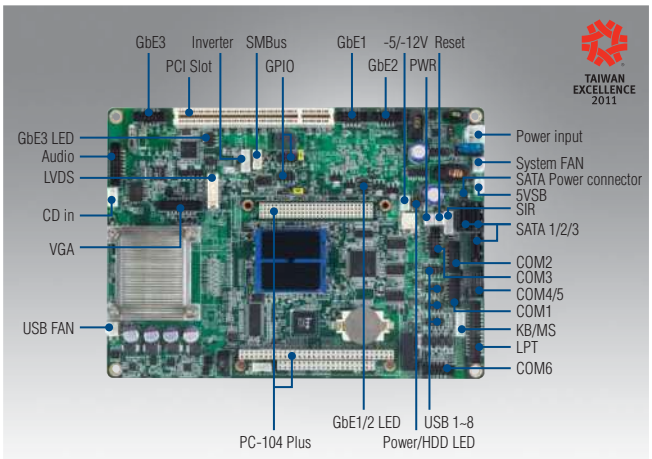
PCM-9562

Intel® Atom™ N450/D510 EBX SBC with 3 GbE, 6 COM, 3 SATA, 8 USB 2.0, 2 Watchdog



Features

- Embedded Intel® Atom™ processor N450 Single Core/D510 Dual Core 1.66 GHz + ICH8M
- Supports up to 3 Intel GbE, 6 COM, and 2 Watchdog timer
- Design complies with UL60601 on GbE3 and COM6 port isolation (PCM-9562F full version series only)
- Power off protection and Software I²C API support
- Supports SUSIAccess and Embedded Software APIs

Software APIs: Watchdog, I²C, SMBus, H/W Monitor, Brightness, GPIO, Backlight On/Off

Utilities: BIOS Flash, Monitoring

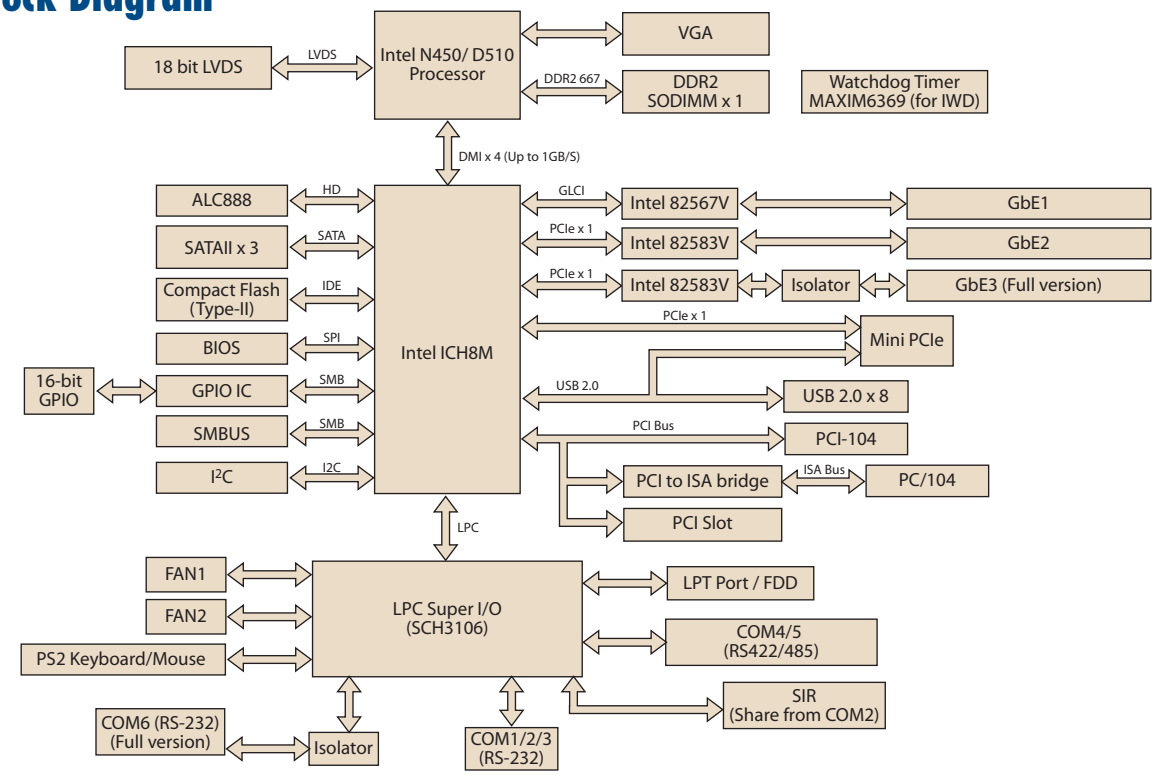
Specifications

Processor System	CPU	Intel Atom N450/D510 1.66 GHz
	Frequency	Atom N450/D510 1.66 GHz
	L2 Cache	512 KB/1 MB
	System Chipset	N450/D510 + ICH8M
	BIOS	AMI 16 Mbit
Memory	Technology	DDR2 667 MHz
	Max. Capacity	2 GB
	Socket	1 x 200-pin SODIMM
Display	Chipset	N450/D510
	VRAM	Optimized Shared Memory Architecture up to 224 MB
	Graphics Engine	Embedded Gen3.5+ GFX Core, HW MPEG2 decoder
	LVDS	Single channel 18-bit LVDS up to WXGA 1366 x 768
	VGA	N450: Up to SXGA 1400 x 1050 @ 60 Hz (SXGA) D510: up to 2048 x 1536 (QXGA)
	Dual Display	VGA+ LVDS
Ethernet	Interface	3 (RJ-45 connector through the cable and Ethernet3 is Full version only)
	Controller	GbE1 Intel 82567, GbE2 Intel 82583V, GbE3 Intel 82583V (UL60601 Compliant)
	Connector	Box header
Audio	Chipset	ALC888 HD Codec, Speaker out, CD-input, Line-in, Line-out, Mic-in
	Amplifier	Max 2.2W/ch Stereo into a 3Ω Load
WatchDog Timer	Output	System reset
	Internal	Watchdog timer1 (IWT): monitor the system status before OS is ready (programmable 10ms, disable, 1s, 60s) Watchdog timer2 (PWT): monitor the application status after OS is ready (programmable 1 - 255 sec/min) (Full version only)
Storage	CompactFlash	CompactFlash type I/II
	SATA	3 SATA II (Max. Data Transfer Rate 300 MB/s)
	Floppy	Share with LPT (Optional)
	SPI Flash	16 Mbit
Internal I/O	Serial	4 x RS-232 (COM1/2/3/6, isolation design in COM6 is Full version only) 2 x RS-422/485 (COM4/5, default RS-422/485, RS-232 with TX/RX only is optional by request) ESD protection for RS-232: Air gap ±15kV, Contact ±8kV
	Ethernet	GbE x 3 (RJ-45 connector through the cable and GbE3 is Full version)
	PS/2 KB/Mouse	1
	VGA	1
	Reset Button	1
	USB	8 x USB 2.0
	Parallel (LPT)	1
	FDD	Share with LPT (Optional)
	GPIO	16-bit GPIO
	SMBUS	1
	I2C	1
Expansion	PC/104-Plus slot	1
	Full-size Mini PCIe	1
	PCI Slot	1
Power	Power Type	AT / ATX (Both AT/ATX can support ACPI)
	Power Supply Voltage	ATX: 12V ±10%, 5VSB ±5% (5V stand-by power is only for auto power off function) AT: 12V ±10% only
	Power Consumption (Typical)	PCM-9562N-S6A1E: 893 mA @ 12 V, 8 mA @ 5 VSB (10.8 W) PCM-9562D-S6A1E: 1130 mA @ 12 V , 10 mA @ 5 VSB (13.6 W)
	Power Consumption (Max, test in HCT)	PCM-9562N-S6A1E: 1159 mA @ 12 V, 6 mA @ 5 VSB (13.9 W) PCM-9562D-S6A1E: 1404 mA @ 12 V, 8 mA @ 5 VSB (16.9 W)
Environment	Operating	0 ~ 60° C (32 ~ 140° F) (Operating humidity: 40° C @ 95% RH non-condensing)
	Non-Operating	-40° C ~ 85° C and 60° C @ 95% RH non-condensing
Physical Characteristics	Dimensions (L x W)	203 x 146 mm (8" x 5.75")
	Weight	0.7 kg (1.54 lb) (with heatsink)
	Total Height (with cooler + PCB + Bottom)	29.6mm (PCM-9562N/NF), 38.6mm (PCM-9562D/DF), 44.6mm (PCM-9562Z/Z2)

All product specifications are subject to change without notice

Last updated : 15-Jan-2014

Block Diagram



Ordering Information

Model	CPU	Memory	VGA	LVDS	GbE1	GbE2	GbE3 UL60601	HD Audio	USB 2.0	Watchdog Timer	RS-232	RS-422/ 485	PC/104-Plus	Mini PCIe	CF	Power	Thermal	Operating Temperature
PCM-9562N-S6A1E	Atom N450	SODIMM	1	18-bit	1	1	-	Yes	8	1	3	2	Yes	1	1	AT/ATX	Passive	0 ~ 60° C
PCM-9562D-S6A1E	Atom D510	SODIMM	1	18-bit	1	1	-	Yes	8	1	3	2	Yes	1	1	AT/ATX	Active	0 ~ 60° C
PCM-9562NF-S6A1E	Atom N450	SODIMM	1	18-bit	1	1	1	Yes	8	2	3+1	2	Yes	1	1	AT/ATX	Passive	0 ~ 60° C
PCM-9562DF-S6A1E	Atom D510	SODIMM	1	18-bit	1	1	1	Yes	8	2	3+1	2	Yes	1	1	AT/ATX	Active	0 ~ 60° C
PCM-9562NZ-1GS6A1E	Atom N450	Bundle 1GB	1	18-bit	1	1	Optional	Yes	8	1	3	2	Yes	1	1	AT/ATX	Passive	-20 ~ 80° C
PCM-9562Z2-1GS6A1E	Atom N450	Bundle 1GB	1	18-bit	1	1	Optional	Yes	8	1	3	2	Yes	1	1	AT/ATX	Passive	-40 ~ 85° C

* Passive = fanless; Active = with fan
* PCM-9562NF-S6A1E and PCM-9562DF-S6A1E are designed with UL60601 isolation GbE3, COM6, and Watchdog Timer2
* Both COM6 and GbE3 are optional by request for extended temperature products

Packing List

Part No.	Description	Quantity
	PCM-9562 SBC	1
9689000002	Mini Jumper Pack	1
2006956200	Startup Manual	1
2066956200	Utility CD	1
1700015741	ATX 5VSB cable	1
1960020569S000	Heatsink for PCM-9562N/NF (50 x 50 x 10 mm)	1
1960046526N001	Cooler for PCM-9562D/DF (50 x 50 x 24 mm)	1
1960002379	Heatsink for PCM-9562NZ/Z2 (50 x 50 x 30 mm)	1

Optional Accessories

Part No.	Description
PCM-10586-9562E	Wiring kit for PCM-9562
1703100260	USB cable
170304015K	AT cable 4P x 2/4200-H-4P 15 cm
1960049954N001	Heatspreader 157.4 x 100 x 24 mm
1700001531	LPT to FDD cable

Embedded OS/API

Embedded OS/API	Part No.	Description
Win XPE	2070010314	XPE WES2009 V4.0 MUI24
WES 7	2070009835	Image WES7E V5.0 ENG
WinCE7.0	2070011082	Image CE 7.0 Pro PCM-9562 V1.0 ENG
QNX		6.5
VxWorks		6.8
Linux		Ubuntu10.04.1
Software API	205E956000	SUSI 3.0 SW API for PCM-9562 B:20091009 XP