

# Одноплатные промышленные компьютеры Biscuit серии РСМ-9000

## ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ

**По вопросам продаж и поддержки обращайтесь:**

Архангельск (8182)63-90-72  
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Белгород (4722)40-23-64  
Брянск (4832)59-03-52  
Владивосток (423)249-28-31  
Волгоград (844)278-03-48  
Вологда (8172)26-41-59  
Воронеж (473)204-51-73  
Екатеринбург (343)384-55-89  
Иваново (4932)77-34-06  
Ижевск (3412)26-03-58  
Казань (843)206-01-48

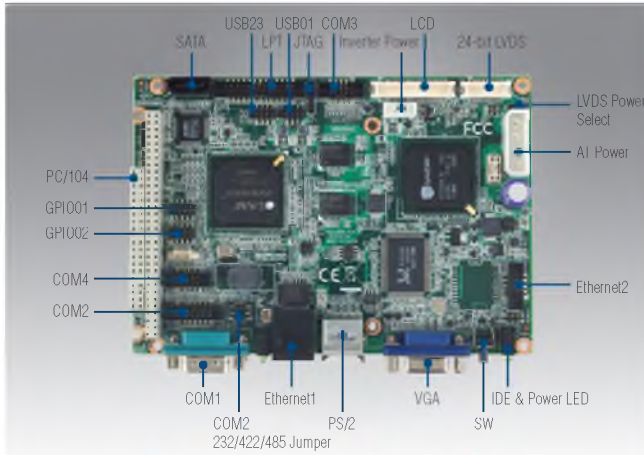
Калининград (4012)72-03-81  
Калуга (4842)92-23-67  
Кемерово (3842)65-04-62  
Киров (8332)68-02-04  
Краснодар (861)203-40-90  
Красноярск (391)204-63-61  
Курск (4712)77-13-04  
Липецк (4742)52-20-81  
Магнитогорск (3519)55-03-13  
Москва (495)268-04-70  
Мурманск (8152)59-64-93  
Набережные Челны (8552)20-53-41

Нижний Новгород (831)429-08-12  
Новокузнецк (3843)20-46-81  
Новосибирск (383)227-86-73  
Орел (4862)44-53-42  
Оренбург (3532)37-68-04  
Пенза (8412)22-31-16  
Пермь (342)205-81-47  
Ростов-на-Дону (863)308-18-15  
Рязань (4912)46-61-64  
Самара (846)206-03-16  
Санкт-Петербург (812)309-46-40  
Саратов (845)249-38-78

Смоленск (4812)29-41-54  
Сочи (862)225-72-31  
Ставрополь (8652)20-65-13  
Тверь (4822)63-31-35  
Томск (3822)98-41-53  
Тула (4872)74-02-29  
Тюмень (3452)66-21-18  
Ульяновск (8422)24-23-59  
Уфа (347)229-48-12  
Челябинск (351)202-03-61  
Череповец (8202)49-02-64  
Ярославль (4852)69-52-93

# PCM-9343

DM&P Vortex86DX 800MHz 3.5" SBC, Ultra Low Power, Onboard Memory, Dual Ethernet, CF, PC/104



## Features

- DM&P Vortex86DX, onboard DDR2 memory up to 512 MB
- Display type: VGA, 18/24-bit LVDS, 18/24-bit TTL
- Supports Floating Point Unit, total power consumption 4 – 6 Watts, supports extended temperature to -40 – 85° C
- Dual Ethernet: 10/100 Ethernet1 and 10/100 Ethernet2, supports PC/104 (8-bit/16-bit ISA) expansion
- Supports SUSIAccess and Embedded Software APIs

### Software APIs:



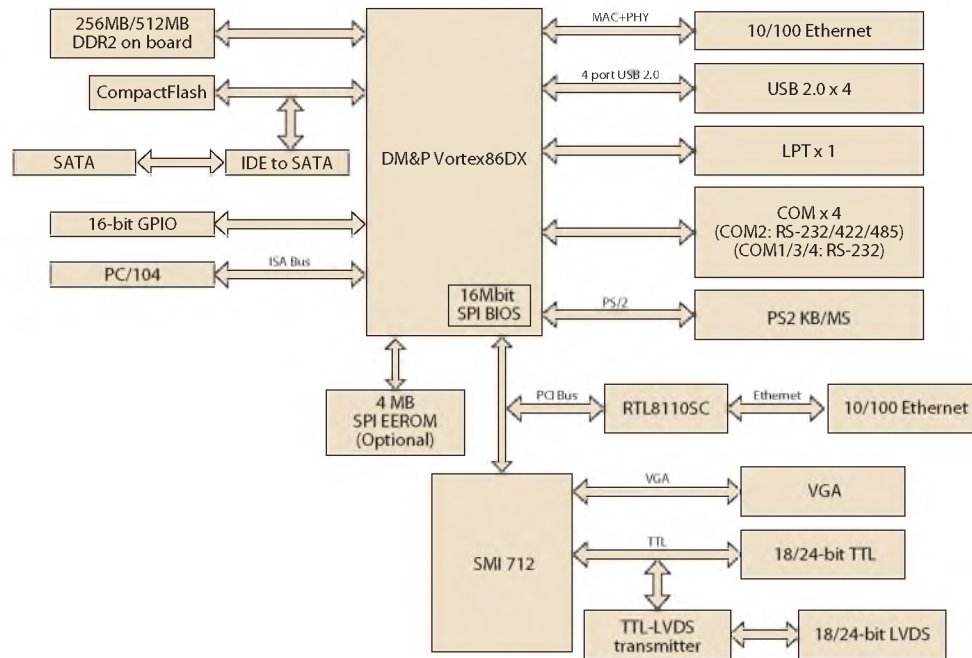
### Utilities:



## Specifications

Processor System	CPU	DM&P Vortex86DX 800 MHz, supports floating Point Unit (FPU)	
	Frequency	800 MHz	
	L2 Cache	256 KB	
	System Chipset	DM&P Vortex86DX + SMI SM712	
	BIOS	Award integrated 16 Mbit ROM in SOC	
Memory	Technology	DDR2 333 MHz SDRAM on board	
	Max. Capacity	512 MB	
	Onboard memory	Onboard 256 MB or 512 MB	
Display	Chipset	SMI SM712 2D graphics chip	
	VRAM	4 MB internal memory	
	Graphics Engine		62.5 MHz single clock/cycle engine (EM+)
			86 MHz single clock/cycle engine (EM4+)
			Designed to accelerate DirectDraw
	LVDS		Supports single channel 18/24-bit LVDS LCD Panel to 1024 x 768 (1280 x 1024 supported by request)
VGA		Supports up to 1024 x 768 @ 85 Hz	
TTL LCD		Supports up to 1024 x 768 @ 24-bit TFT LCD Panel	
Dual Display		VGA + TTL, VGA + LVDS	
Ethernet	Speed	10/100 Mbps	
	Controller	Ethernet1: 10/100 Mbps on DM&P Vortex86DX Ethernet2: 10/100 Mbps on Realtek RTL8110SC	
	Connector	RJ-45 on Ethernet1, box header on Ethernet2	
WatchDog Timer		Internal: 2 sets, 32.768 KHz frequency source to count a 24-bit counter so the time range is from 30.5µ sec to 512 sec with resolution 30.5µ sec	
Storage	CompactFlash	CompactFlash type I/II (Primary Master IDE Channel) Supports 2 channels Ultra-DMA 100	
	SATA	1 x SATA (Max. Data Transfer Rate 150 MB/s)	
	SPI Flash	Optional onboard 4MB SPI Flash Disk (Supported by request)	
Rear I/O	Serial	1 (COM1 supports RS-232) (ESD protection for RS-232: Air gap ±15kV, Contact ±8kV) (COM1 supports console mode)	
	Ethernet	1 (10/100 Mbps Ethernet1)	
	PS/2 KB/Mouse	1	
	VGA	1	
	IDE&PWR LED	1	
	Reset Button	1	
Internal I/O	USB	4 x USB 2.0	
	Serial	3 COM (COM2, COM3, COM4) (ESD protection for RS-232: Air gap ±15kV, Contact ±8kV) COM2 supports RS-232/422/485 (Supports RS-485 auto flow control), COM2 supports console mode COM3/COM4 supports RS-232	
	Ethernet	1 (10/100 Mbps Ethernet2)	
	Parallel (LPT)	1	
	GPIO	16-bit GPIO	
	IFC	1	
Expansion	PC/104 Slot	PC/104 Expansion (8/16-Bit ISA)	
Power	Power Type	AT	
	Power Supply Voltage	Single +5V boot up, ±5% (+12V option for LCD, ISA)	
	Power Consumption (Typical)		PCM-9343EL: 0.44 A @ 5 V (2.2 W)
			PCM-9343EF: 0.81 A @ 5 V (4.05 W)
			PCM-9343EFG: 1.02 A @ 5 V (5.1 W)
	Power Consumption (Max. test in HCT)		PCM-9343EL: 0.75 A @ 5 V (3.75 W)
		PCM-9343EF: 1.09 A @ 5 V (5.45 W)	
Power Management		APM	
Battery		Lithium 3 V / 210 mAh	
Environment	Operational	0 – 60° C (32 – 140° F) (Operating humidity: 40° C @ 95% RH non-condensing)	
	Non-Operational	-40° C – 85° C and 60° C @ 95% RH non-condensing	
Physical Characteristics	Dimensions (L x W)	146 x 102 mm (5.7" x 4")	
	Weight	0.64 kg (1.41 lb), weight of total package	
	Total Height	23.7 mm	

## Block Diagram



## Ordering Information

Part No.	CPU	CPU Frequency	Onboard Memory	TTL	LVDS	VGA	10/100 Ethernet	RS-232/422/485	RS-232	USB 2.0	CF	SATA	Expansion	Thermal Solution	Operational Temp.
PCM-9343EL-S6A1E	Vortex86DX	800 MHz	256 MB	-	-	-	1	1	1	2	1	-	PC/104	Passive	0 ~ 60° C
PCM-9343EF-S6A1E	Vortex86DX	800 MHz	256 MB	18/24-bit	18/24-bit	Yes	1	1	3	4	1	1	PC/104	Passive	0 ~ 60° C
PCM-9343EFG-S6A1E	Vortex86DX	800 MHz	512 MB	18/24-bit	18/24-bit	Yes	2	1	3	4	1	1	PC/104	Passive	0 ~ 60° C
PCM-9343FGZ-S6A1E	Vortex86DX	800 MHz	512 MB	18/24-bit	18/24-bit	Yes	2	1	3	4	1	1	PC/104	Passive	-20 ~ 80° C
PCM-9343FGZ2-S6A1E	Vortex86DX	800 MHz	512 MB	18/24-bit	18/24-bit	Yes	2	1	3	4	1	1	PC/104	Passive	-40 ~ 85° C

Note: Passive = fanless; Active = with fan

## Packing List

Part No.	Description	Quantity
	PCM-9343 SBC	
	Startup Manual	
	Utility CD	
1700008894	SATA 7P 30 cm cable	1
1700060202	PS2 6P x 2 20 cm cable	1
1700100250	COM3/4 IDE D-SUB 25 cm cable	2
1701140201	COM2 IDE D-SUB 20 cm cable	1
1700260250	LPT IDE 26P D-SUB 25 cm cable	1
1703100121	USB 2 x 5P-2.0 12 cm W/BKT cable	1
1700017863	Ethernet cable RJ45 15cm (PCM-9343EFG/FGZ use)	1
9689000002	mini jumper pack	1
1960047356N001	Heatsink for DM&P Vortex86DX (27x27x6.3mm)	1

## Optional Accessories

Part No.	Description
1703150102	SATA 10 cm Power cable

## Embedded OS/API

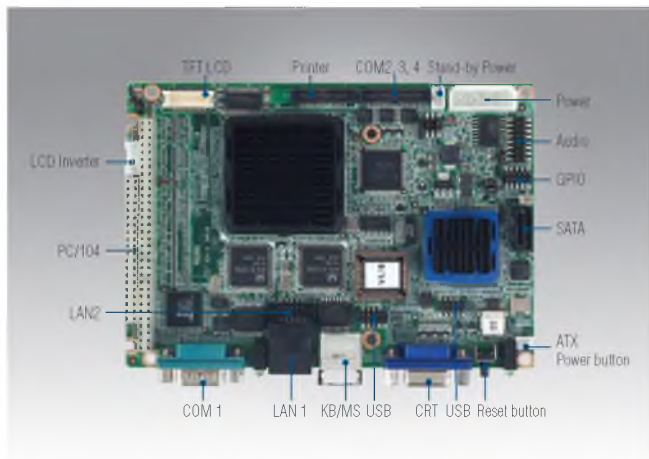
Embedded OS/API	Part No.	Description
WinCE	2070009764	CE 5.0 Pro PCM-9343 V1.3 ENG
	2070009537	Image CE 6.0 Pro PCM-9343 V1.3 ENG
	2070010821	Image CE 7.0 Pro PCM-9343 ENG
Win XPE	2070009528	Image XPE for PCM-9343 ENG
	2070009529	Image XPE for PCM-9343 24MUI
QNX		6.4.1
Vxwork		5.5
Linux		Ubuntu 10.04.1
Software API	2056343000	SUSI 3.0 SW API for PCM-9343 B:20100122 XP

## Rear I/O View



# PCM-9375

3.5" SBC w/ AMD LX800, VGA, LVDS, LCD



## Features

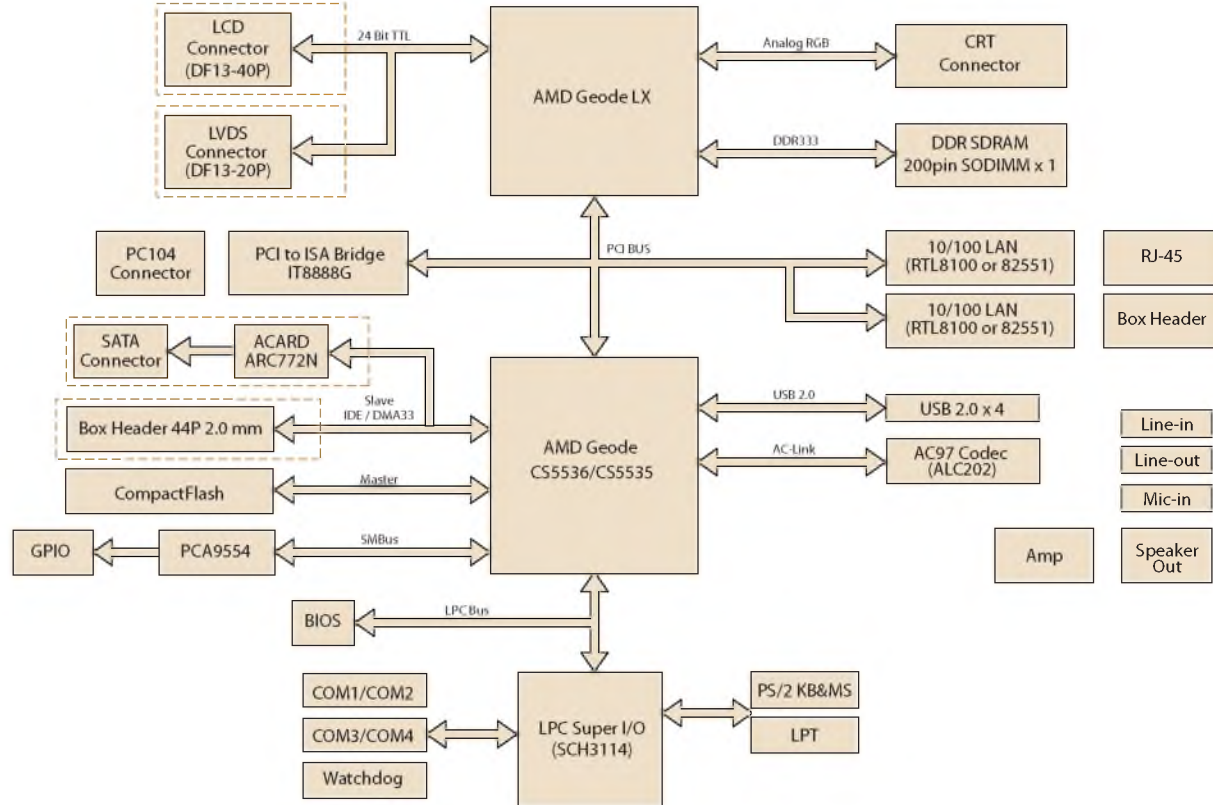
- AMD low power LX800 500 MHz processor
- Supports DDR memory
- 24-bit TFT LCD interface
- 18-bit LVDS LCD display (optional)
- Dual 100 Mbps Fast Ethernet
- Four USB 2.0 ports
- Four COM ports
- PC/104 Expansion interface
- Coastline (external connector layout) same as PCM-5820



## Specifications

Processor System	CPU	AMD Geode™ LX800 processor, up to 500 MHz
	L2 Cache	128 KB
	Chipset	AMD Geode LX800
	BIOS	Award 4 Mbit
Memory	Technology	DDR 333/400 MHz
	Max. Capacity	512 MB (1 GB optional)
	Socket	1 x 200-pin SODIMM
SSD	CompactFlash	Card Type I
Coastline I/O	VGA	1
	COM	1
	RJ-45	1
	K/B, Mouse	1
Internal I/O	LPT	1
	FDD	1 (option)
	RS-232	2
	RS-232/422/485	1
	K/B	-
	Mouse	-
	USB	4 x USB 2.0
	Audio	AC97, Line-in, Line-out, Mic-in
	GPIO	8-bit general purpose Input / Output
	SMBus	Optional
EIDE	Mode	UDMA 33/66
	Channel	1
Expansion Slot	PC/104	1
Ethernet	Speed	10/100 Mbps
	Controller	Realtek RTL8100 Intel 82551QM (optional)
	Interface	1 x RJ-45, 1 x RJ-45 by cable
Display	Controller	AMD Geode LX800
	VRAM	Optimized Shared Memory Architecture up to 64 MB system memory
	TTL LCD	1 x 24-bit TTL (PCM-9375F)
	LVDS LCD	1 x 18-bit LVDS (PCM-9375E)
Environment	Operating Temperature	0 – 60° C (32 – 140° F); -20 – 80° C (-4 – 176° F)
	Operating Humidity	10% – 90% relative humidity, non-condensing
Power	Power Type	AT / ATX
	Power Supply Voltage	ATX: +5 V ± 5%, ±12 V ± 5% AT: 5V only to boot up (12 V is optional for LCD inverter and add on card)
	Power Consumption	Typical (WinXP Idle Mode): +5 V @ 1.29 A, +12 V @ 0.09 A Max (Test in HCT): +5 V @ 1.52 A, +12 V @ 0.12 A
	Power Management	APM 1.2, ACPI
	Battery	Lithium 3 V / 196 mAH
Watchdog Timer	Output	System reset
	Interval	Programmable 1 – 255 sec
Physical Characteristics	Dimensions (L x W)	146 x 102 mm (5.7" x 4")
	Weight	0.85 kg (1.87 lb), weight of total package

## Board Diagram



## Ordering Information

Part No.	CPU	CRT	LVDS	TTL	LAN	IDE/SATA	USB2.0	RS-232	RS-232/422/485	LPT	GPIO	CF	PC/104	Operating Temp.
PCM-9375F-J0A1E	AMD LX800	1	-	1	2 FE	1 IDE	4	3	1	1	8-bit	1	1	0 ~ 60° C
PCM-9375E-J0A1E	AMD LX800	1	1	-	2 FE	1 IDE	4	3	1	1	8-bit	1	1	0 ~ 60° C
PCM-9375SF-J0A1E	AMD LX800	1	-	1	2 FE	1 SATA	4	3	1	1	8-bit	1	1	0 ~ 60° C
PCM-9375SE-J0A1E	AMD LX800	1	1	-	2 FE	1 SATA	4	3	1	1	8-bit	1	1	0 ~ 60° C
	AMD LX800	1	-	1	2 FE	1 IDE	4	3	1	1	8-bit	1	1	-20 ~ 80° C
	AMD LX800	1	1	-	2 FE	1 IDE	4	3	1	1	8-bit	1	1	-20 ~ 80° C
	AMD LX800	1	-	1	2 FE	1 IDE	4	3	1	1	8-bit	1	1	-40 ~ 85° C
	AMD LX800	1	1	-	2 FE	1 IDE	4	3	1	1	8-bit	1	1	-40 ~ 85° C

Note: For wide temperature, please contact sales rep.

## Packing List

Part No.	Description
	1 x PCM-9375 SBC, 1 x Startup manual, 1 x Utility CD
9689000002	1 x Mini jumper pack
1701440351	1 x IDE 44 pin (PCM-9375F & PCM-9375E only)
1700060202	1 x Keyboard/mouse cable
1703100121	1 x USB 2.0 cable
1701100202	1 x LAN cable
1700160160	1 x Audio cable
1700001971	1 x COM2/3/4 (RS-232) cable
1700001977	1 x Parallel port cable
1700008894	1 x SATA cable (PCM-9375SF & PCM-9375SE only)

## Optional Accessories

Part No.	Description
1700002150	COM2 cable for RS-422/485
1703200201	ATX power control cable

## Floppy Disk Module

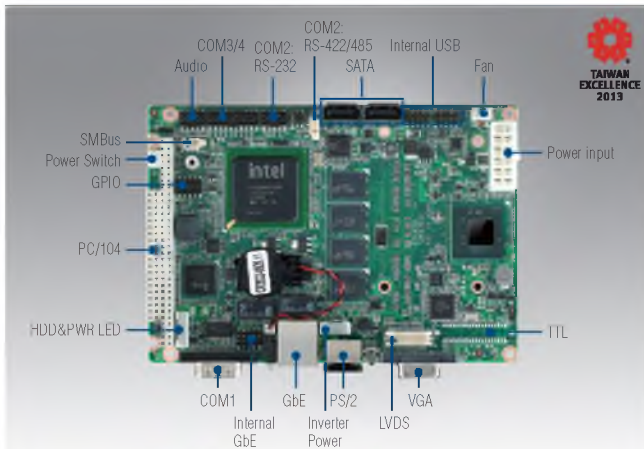
Part No.	Description
9696937580E	PCM-9375-FDD module
1701340700	Flat cable 34-pin for FDD
1700002212	2 x LPT Cable 2LPT 1.27 mm

## Embedded OS

Part No.	Description
2070000729	Win CE 5.0 Pro SP1 OS Image and License for PCM-9375, English Version (optional)
2070001612	CE60 Pro PCM-9375 4Com V1.0 ENG
2070000732	Win XPe SP2 for PCM-9375 V2.10, English version (430 MB) (Optional)
2066002300	SUSI Library V1.0

# PCM-9389

**Intel® Atom™ N455/D525 3.5" SBC, DDR3 SODIMM/on-board SDRAM, 24-bit LVDS/TTL, VGA, 2 GbE, LPC, CF, PC/104, iManager**



## Features

- Intel® Atom™ N455 Single Core/ D525 Dual Core processor + ICH8M, DDR3 on-board memory or SO-DIMM support
- Intel Gen 3.5 DX9, MPEG2 Hardware Decoder, dual independent display: 18/24-bit LVDS, VGA
- Intel Dual GbE supported; Rich I/O interface with 4 COM, 2 SATA, 4 USB and GPIO connectors
- Integrates internal LPC connector to support four extra COM ports via PCA-COM232 or PCA-COM485
- Supports iManager, SUSIAccess and Embedded Software APIs

### Software APIs:



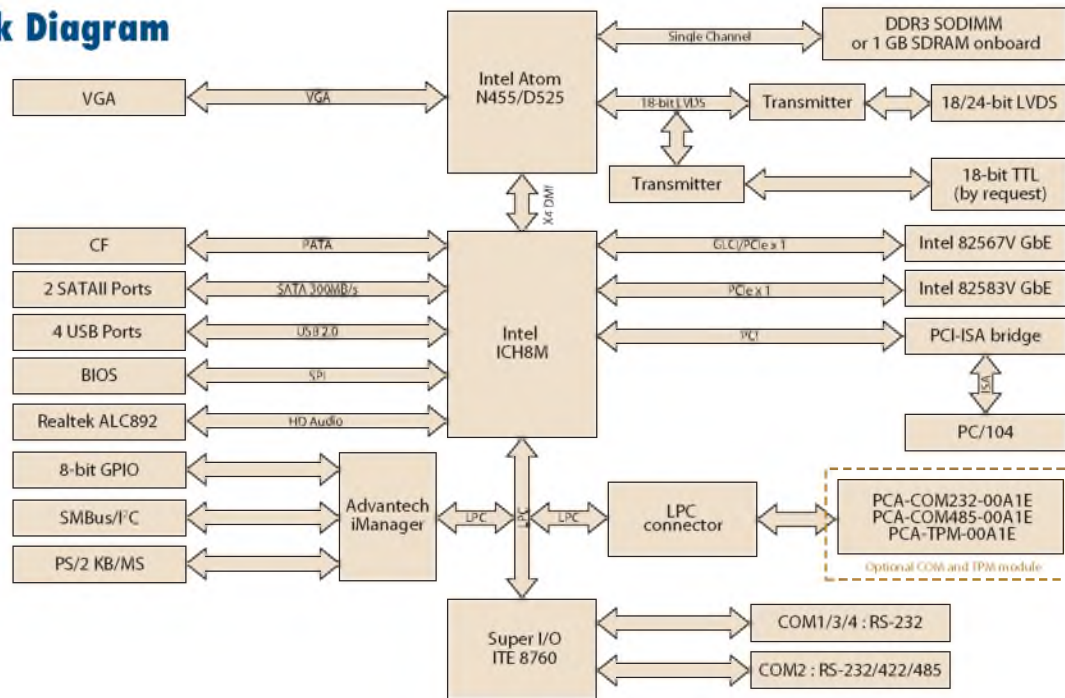
### Utilities:



## Specifications

Processor System	CPU	Intel Atom N455 Single Core 1.66 GHz Processor Intel Atom D525 Dual Core 1.8 GHz Processor
	Frequency	1.66 GHz on N455, 1.8 GHz on D525
	L2 Cache	512 KB/1 MB
	System Chipset	Intel N455/D525 + ICH8M
Memory	BIOS	AMI 16 Mbit Flash BIOS
	Technology	DDR3 667 MHz for N455, 800 MHz for D525
	Max. Capacity	SODIMM sku: 2GB for N455, 4GB for D525
	Socket	1 x 204-pin SODIMM
Display	Onboard Memory	1GB (D525 on board memory supported by request)
	Chipset	Intel Atom Processor N455 1.66GHz/D525 1.8 GHz
	VRAM	Optimized Shared Memory Architecture up to 224 MB system memory
	Graphic Engine	Intel Gen 3.5 DX9, MPEG2 hardware decoder Embedded Gen3.5+ GFX Core
	LVDS	LVDS: Single channel 18/24-bit LVDS up to WXGA 1366 x 768
	VGA	Intel Atom N455 Single Core up to 1400 x 1050 (SXGA), Intel Atom D525 Dual Core up to 2048 x 1536
Ethernet	TTL	18-bit TTL (by request)
	Dual Display	VGA+LVDS, VGA+TTL (TTL support by request)
	Speed	10/100/1000 Mbps (Supports Wake on LAN)
Audio	Controller	GbE1 Intel 82567V, GbE2 Intel 82583V
	Connector	GbE1 on RJ-45, GbE2 on Internal box wafer
	Chipset	Realtek ALC892
WatchDog Timer		High Definition Audio (HD), Line-in, Line out, Mic-in 255 levels timer interval, programmable by software, Multi-level WDT (set by iManager)
Storage	CompactFlash	CompactFlash type I/II (Primary Master IDE Channel)
	SATA	2 SATA II (Max. Data Transfer Rate 300 MB/s)
Rear I/O	Serial	1 (COM1 supports RS-232) (ESD protection for COM1: Air gap ±15kV, Contact ±8kV)
	Ethernet	1 (10/100/1000 Mbps)
	PS/2 KB/Mouse	1
	VGA	1
	Reset Button	1
Internal I/O	USB	4 x USB 2.0
	Serial	3 x COM (ESD protection for all COM ports: Air gap ±15kV, Contact ±8kV) COM3/4 supports RS-232, COM2 supports RS-232/422/485 (Supports RS-485 auto flow control)
	SMBus	1
	I²C	1 (Shared with SMBus)
	Ethernet	1 (10/100/1000 Mbps)
	GPIO	8-bit GPIO (5V tolerance)
Expansion	PC/104 Expansion (8/16-bit ISA)	1 (No support ISA DMA) (Booted and powered from PC/104 supported by request)
	LPC connector	1 (For support of COM ports by PCA-COM232 or PCA-COM485)
Power	Power Type	AT/ATX
	Power Supply Voltage	5V±5% (12V option for LCD, PC/104)
	Power Consumption (Typical)	PCM-9389N: 1.63 A @ 5 V (8.15 W) PCM-9389D: 1.94 A @ 5 V (9.7 W)
	Power Consumption (Max, test in HCT)	PCM-9389N: 2.23 A @ 5 V (11.15 W) PCM-9389D: 2.9 A @ 5 V (14.5 W)
	Power Management	APM, ACPI
	Battery	Lithium 3 V/210 mAh
Environment	Operational	0 – 60° C (32 – 140° F) (Operational humidity: 40° C @ 95% RH Non-Condensing)
	Non-Operational	-40° C – 85° C and 60° C @ 95% RH Non-Condensing
Physical Characteristics	Dimensions (L x W)	146 x 102 mm (5.7" x 4")
	Weight	0.64 kg (1.41 lb), weight of total package
	Total Height	26.2 mm for PCM-9389N 29.2 mm for PCM-9389D

### Block Diagram



### Ordering Information

Part Number	CPU	L2 Cache	Memory	VGA	LVDS	TTL	USB 2.0	SATA II	GbE	Audio	RS-232	RS-232/422/485	CF	LPC conn.	Expansion	Thermal Solution	Operating Temp.
PCM-9389N-1GS6A1E	Atom N455	512 KB	1GB onboard	1	18/24-bit	by request	4	2	2	Yes	3	1	1	Yes	PC/104	Passive	0 ~ 60° C
PCM-9389N-S6A1E	Atom N455	512 KB	SODIMM	1	18/24-bit	by request	4	2	2	Yes	3	1	1	Yes	PC/104	Passive	0 ~ 60° C
PCM-9389D-S8A1E	Atom D525	1 MB	SODIMM	1	18/24-bit	by request	4	2	2	Yes	3	1	1	Yes	PC/104	Active	0 ~ 60° C
PCM-9389NZ-1GOBA1E	Atom N455	512 KB	1GB onboard	1	18/24-bit	by request	4	2	2	Yes	3	1	1	Yes	PC/104	Passive	-20 ~ 80° C
PCM-9389NZ-2GDMA1E	Atom N455	512 KB	2GB bundled	1	18/24-bit	by request	4	2	2	Yes	3	1	1	Yes	PC/104	Passive	-20 ~ 80° C
PCM-9389NZ21GOBA1E	Atom N455	512 KB	1GB onboard	1	18/24-bit	by request	4	2	2	Yes	3	1	1	Yes	PC/104	Passive	-40 ~ 85° C
PCM-9389NZ22GDMA1E	Atom N455	512 KB	2GB bundled	1	18/24-bit	by request	4	2	2	Yes	3	1	1	Yes	PC/104	Passive	-40 ~ 85° C

Note: Passive = fanless; Active = with fan

### Packing List

Part No.	Description	Quantity
	PCM-9389 SBC	
	Startup Manual	
	Utility CD	
9689000002	mini Jumper pack	
1700060202	KB/MS cable 20cm	1
1700018730	USB cable (2 ports) w/o bracket 25cm	2
1700019584	Audio cable (Mic-in, Line-in, Line-out) 20cm	1
1700016141	AT Power Cable	1
1700017863	RJ-45 LAN cable , 15cm	1
1700006291	SATA 7P cable w/ right angle, 30cm	1
1701200220	COM3/4 10*2P-2.0/D-SUB*2, 22cm	1
1700019435	COM2: RS-422/485 5P-1.25/D-SUB, 25cm	1
1700019414	COM2: RS-232 5*2P-2.0/D-SUB, 30cm	1
1960047988T011	Heatsink for ICH8M, 28x28.4x8mm	1
1960055364T001	Heatsink for PCM-9389N, 73.5x87.5x15mm	1
1960055365T001	Cooler for PCM-9389D, 73.5x87.5x18mm	1
1960057842T001	Heatsink for PCM-9389NZ/NZ2, 73.5x87.5x20mm	1

### Rear I/O View



### Optional Accessories

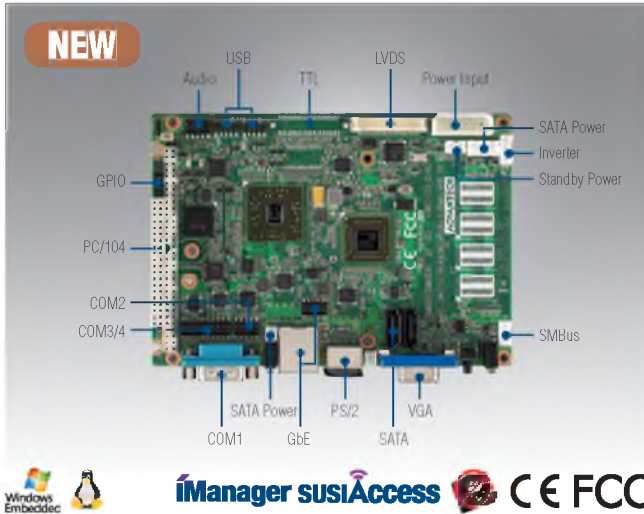
Part No.	Description
1960056151N001	Heat spreader (113 x 69.5 x 15 mm)
PCA-COM232-00A1E	4 RS-232 ports extension module, 31.5 x 48 mm
PCA-COM485-00A1E	4 RS-422/485 ports extension module, 31.5 x 48 mm (supported by request with OEM BIOS)
PCA-TPM-00A1E	TPM module, 31.5 x 48 mm
1700001112	ATX Power Cable
1700018436	Inverter 5P to SATA power 15P cable 10cm

### Embedded OS/API

Embedded OS/API	Part No.	Description
Win XPE	2070011341	XPE WES2009 PCM-9389 V4.0 24MUI
	2070010313	XPE WES2009 PCM-9389 V4.0 ENG
WinCE	2070011337	CE 6.0 R3 Pro PCM-9389 V6.0.0 ENG (4 COM)
WES7	2070009835	Image WES7E Intel Lunar V5.0 ENG
QNX		6.5
VxWorks		6.8
Linux		Ubuntu 10.04.1
Software API		iManager 2.0

# PCM-9376

**AMD G-Series T16R 3.5" SBC, DDR3 SODIMM/  
on-board SDRAM, PC/104, 48-bit LVDS, VGA,  
24-bit TTL, 2GbE, Mini PCIe, mSATA, LPC,  
iManager**



## Features

- AMD G-Series Single Core T16R processor + A55E, DDR3 SODIMM up to 4GB
- DirectX11 supported. 48-bit LVDS, VGA, 24-bit TTL
- Dual GbE, 4 COM, 2 SATA, mSATA
- Expansion: PC/104, Mini PCIe, LPC connector for additional COM ports
- iManager, SUSIAccess and Embedded software APIs supported

**Software APIs:**

- GPIO
- H/W Monitor
- Watchdog
- Brightness
- SMBus
- Backlight On/Off

**Utilities:**

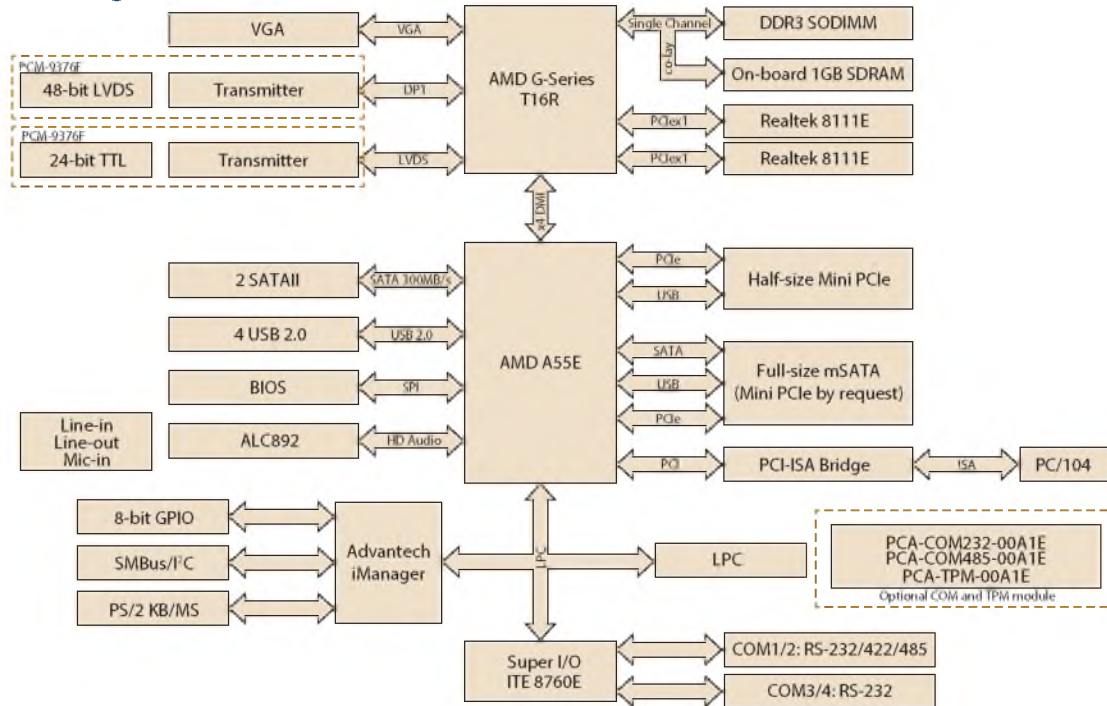
- BIOS flash
- Monitoring

## Specifications

Processor System	CPU	AMD® G-Series™ Single Core processor T16R
	Frequency	615 MHz
	L2 Cache	512 KB
	System Chipset	AMD T16R + A55E
Memory	BIOS	AMI 32-Mbit
	Technology	DDR3 1066 MHz
	Max. Capacity	SODIMM up to 4 GB
	Socket	1 x 204-pin SODIMM
	On-board SDRAM	1 GB
Display	Chipset	AMD T16R processor
	Graphic Engine	DirectX 11 graphics with UVD 3.0, Open CL 1.1, Open GL 4.0 Hardware decode (UVD 3) for H.264, VC-1 and MPEG2
	VRAM	Optimized shared memory Architecture up to 384 MB system memory
	LVDS	48-bit LVDS up to 1920 x 1200 at 60Hz (PCM-9376E)
	VGA	Up to 1920 x 1200 at 85Hz
	TTL	24-bit TTL (PCM-9376F)
Ethernet	Dual Display	VGA+LVDS, VGA+TTL, LVDS+TTL
	Speed	10/100/1000 Mbps
	Controller	GbE1/2: Realtek RTL8111E-VL-CG
Audio	Connector	GbE1 on RJ-45, GbE2 on box wafer
	Chipset	ALC892 Codec (Line-in, line-out, mic-in)
WatchDog Timer		255 levels timer interval, programmable by software, multi-level WDT set by iManager
Storage	SATA	2 SATA II (Max. Data Transfer Rate 300 MB/s)
	mSATA	1 (Full-size, Mini PCIe supported by request)
Rear I/O	Serial	1 (COM1: RS-232/422/485, supports WoR and RS-485's auto flow control) (ESD protection: air gap +15kV, contact +8kV)
	Ethernet	1
	PS/2 KB/Mouse	1
	VGA	1
	Reset button	1
Internal I/O	Ethernet	1
	USB	4 x USB2.0
	Serial	3 (COM2: RS-232/422/485, supports RS-485 auto flow control. COM3/4: RS-232) (ESD protection: air gap +15kV, contact +8kV)
	SMBus	1
	I <sup>2</sup> C	1 (Share with SMBus)
	GPIO	8-bit (5V tolerance)
Expansion	PC/104 slot	1 (8/16-bit ISA) (Booted and powered from PC/104 supports by request)
	Mini PCIe	1 (Half-size)
	LPC connector	1 (For support of COM ports by PCA-COM232 or PCA-COM485)
Power	Power Type	AT/ATX
	Power Supply Voltage	5V ±5% (12V only for LCD and PC/104)
	Power Consumption (Typical)	1.48A @ 5V (7.4 W)
	Power Consumption (Max, test in HCT)	2.28A @ 5V (11.4 W)
	Power Management	ACPI
Environment	Battery	Lithium 3 V / 210 mAh
	Operation	0 ~ 60° C (32 ~ 140° F) (Operational humidity: 40° C @ 85% RH non-condensing)
Physical Characteristics	Non-Operation	-40° C ~ 85° C and 60° C @ 95% RH non-condensing
	Dimensions (L x W)	146 x 102 mm (5.7" x 4")
	Weight	0.51 kg (1.12 lb) for total package
	Total Height	23.9 mm (including of heatsink)



## Block Diagram



## Ordering Information

Part Number	CPU	Memory	VGA	LVDS	TTL	GbE	RS-232/422/485	RS-232	USB2.0	SATA II	Audio	mSATA*	MiniPCle	LPC conn.	Expansion	Thermal Solution	Operating Temp
PCM-9376E-M0A1E	AMD T16R	SODIMM	1	48-bit	-	2	2	2	4	2	Yes	Full-size	Half-size	Yes	PC/104	Passive	0 ~ 60° C
PCM-9376F-M0A1E	AMD T16R	SODIMM	1	-	24-bit	2	2	2	4	2	Yes	Full-size	Half-size	Yes	PC/104	Passive	0 ~ 60° C
PCM-9376E-1GM0A1E	AMD T16R	on-board 1GB	1	48-bit	-	2	2	2	4	2	Yes	Full-size	Half-size	Yes	PC/104	Passive	0 ~ 60° C
PCM-9376EZ-M0A1E	AMD T16R	SODIMM	1	48-bit	-	2	2	2	4	2	Yes	Full-size	Half-size	Yes	PC/104	Passive	-20 ~ 80° C
PCM-9376EZ2-M0A1E	AMD T16R	SODIMM	1	48-bit	-	2	2	2	4	2	Yes	Full-size	Half-size	Yes	PC/104	Passive	-40 ~ 85° C

\* Full-size mSATA supports Mini PCIe upon request

## Packing List

Part No.	Description	Quantity
	PCM-9376 SBC	
	Startup Manual	
1700019414	COM2 cable 2*5P-2.0/D-SUB, 30cm	1
1701200220	COM3/4 cable 2*10P-2.0/D-SUB*2, 22cm	1
1700017863	LAN2 cable 2*5P-2.0/RJ45, 15cm	1
1700019071	USB cable 2*5P-2.0/USB*2 w/o bracket, 12cm	1
1700008941	SATA cable 7P/7P w/ lock, 32cm	1
1700018785	5V/12V SATA Power cable 4P-2.5/SATA 15P, 35cm	1
1703100152	Audio cable 2*5P-2.0/Jack*3, 20cm	1
1700060202	PS/2 cable M-DIN 6P/M-DIN 6P*2, 20cm	1
1960060631T001	Heatsink 134 x 6.9 x 19.5 mm	1
9689000002	mini jumper pack	1

## Optional Accessories

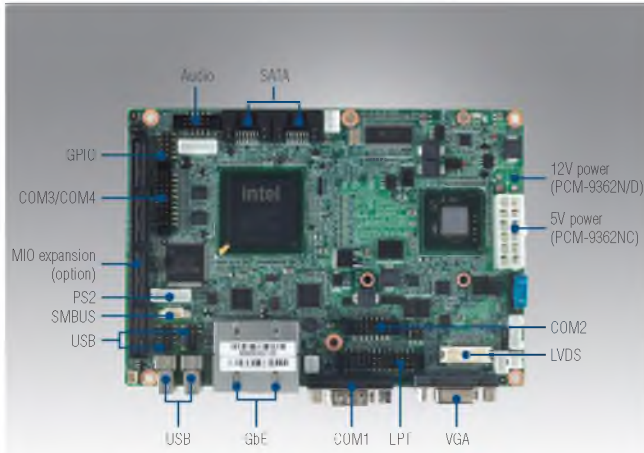
Part No.	Description
1703200201	ATX Power cable, 20cm
1700018259	5V SATA Power cable 2P-2.0/SATA 15P, 20cm
TBC	Heat spreader
PCA-COM232-00A1E	4 RS-232 LPC extension module, 31.5 x 48 mm
PCA-COM485-00A1E	4 RS-422/485 LPC extension module, 31.5 x 48 mm
PCA-TPM-00A1E	LPC extension TPM module, 31.5 x 48 mm

## Embedded OS/API

Embedded OS/API	Part No.	Description
WES7	2070012057	image WES7E PCM-3356 V5.1.5
Win XPE	2070012321	image WES2009 PCM-9376 x86 MUI24 V4.5
WinCE 6.0		WinCE 6.0
WinCE 7.0		WinCE 7.0
Linux		Ubuntu 12.04
Software API		iManager2.0

# PCM-9362

Intel® Atom™ N450/D510 3.5" SBC, LVDS, VGA, 2 GbE, Mini PCIe, CF, MIO-160 Expansion



## Features

- Embedded Intel® Atom™ processor N450 Single Core/ D510 Dual Core 1.66 GHz + ICH8M
- Intel Gen 3.5 DX9, MPEG2 Decode in HW, multiple display: VGA, 18-bit LVDS
- Supports 12 V input power for PCM-9362N/D, 5V input power for PCM-9362NC, supports extended temperature -40° C ~ 85° C
- Supports 2 Intel Giga Ethernet ports; Rich I/O interfaces with 4 COM, 2 SATA, 6 USB and GPIO
- Supports SUSIAccess and Embedded Software APIs

### Software APIs:



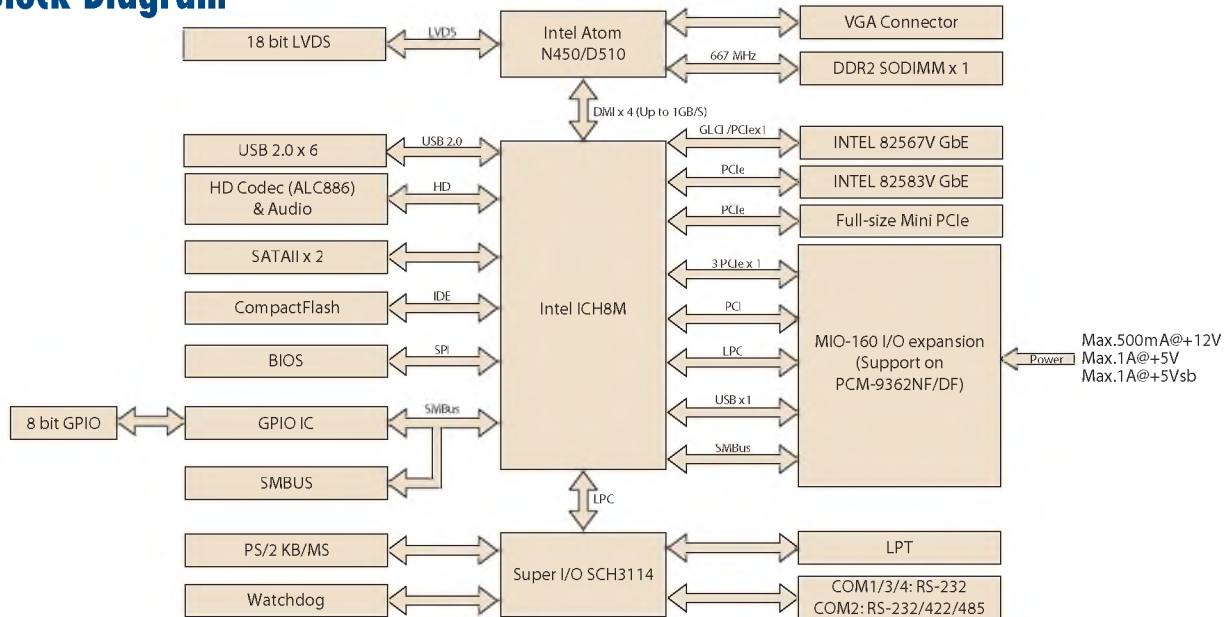
### Utilities:



## Specifications

Processor System	CPU	Intel Atom Processor, N450 Single Core 1.66 GHz Intel Atom Processor, D510 Dual Core 1.66 GHz
	Frequency	1.66 GHz
	L2 Cache	512 KB/1 MB
	System Chipset	Intel N450/D510 + ICH8M
	BIOS	AMI 16 Mbit Flash BIOS
Memory	Technology	DDR2 667 MHz
	Max. Capacity	2 GB
	Socket	1 x 200-pin SODIMM
Display	Chipset	Intel Atom N450/D510 1.66 GHz
	VRAM	Optimized Shared Memory Architecture up to 224 MB system memory
	Graphics Engine	Intel Gen 3.5 DX9, MPEG2 Decode in HW, Embedded Gen3.5+ GFX Core
	LVDS	LVDS: Single channel 18-bit LVDS up to WXGA 1366 x 768
	VGA	Intel Atom N450 Single Core up to 1400 x 1050 (SXGA) Intel Atom D510 Dual Core up to 2048 x 1536
Ethernet	Dual Display	VGA+LVDS
	Speed	10/100/1000 Mbps (Supports Wake on LAN)
	Controller	GbE1 Intel 82567V, GbE2 Intel 82583V
Audio	Connector	RJ-45 on GbE1, GbE2
	Chipset	Realtek ALC886, High Definition Audio(HD), Line-in, Line out, Mic-in
WatchDog Timer		Output System reset, Programmable counter from 1 ~ 255 minutes/ seconds
Storage	CompactFlash	CompactFlash type I/II (Primary Master IDE Channel)
	SATA	2 x SATA II (Max. Data Transfer Rate 300 MB/s)
Rear I/O	Serial	1 (COM1 supports RS-232) (ESD protection for RS-232: Air gap ±15kV, Contact ±8kV)
	Ethernet	2 (10/100/1000 Mbps)
	VGA	1
	USB	2
	USB	4 x USB 2.0 ports
Internal I/O	Serial	3 x COM ports (ESD protection for RS-232: Air gap ±15kV, Contact ±8kV) COM3/COM4 supports RS-232 COM2 supports RS-232/422/485 (Supports RS-485 auto flow control)
	Parallel (LPT)	1
	PS/2 KB/Mouse	1
	GPIO	8-bit GPIO
	SMBus	1
Expansion	Mini PCIe	1 (Full-size)
	MIO-160	1 (Supported on PCM-9362NF/NCF/DF) (SMBus, USB2.0x1, LPC, PCI, 3 x PCIe1, 5V/12V power)
Power	Power Type	AT/ATX (ATX only support on NC/NCF sku) For NC/NCF sku AT: 5V±5% (12V is optional for LCD inverter and add-on card) ATX: 5V±5%, 5 Vsb±5% (12V is optional for LCD inverter and add on card) For D/N/DF/NF sku AT: 12V±10% (No support ATX power supply)
	Power Supply Voltage	
	Power Consumption (Typical)	PCM-9362N: 0.87 A @ 12 V (10.44 W) PCM-9362NC: 2.31 A @ 5 V (11.55 W) PCM-9362D: 1.14 A @ 12 V (13.68 W)
	Power Consumption (Max. test in HCT)	PCM-9362N: 1.01 A @ 12 V (12.12 W) PCM-9362NC: 2.36 A @ 5 V (11.8 W) PCM-9362D: 1.43 A @ 12 V (17.16 W)
	Power Management	APM, ACPI
	Battery	Lithium 3 V/210 mAh
	Environment	Operational
	Non-Operational	-40° C ~ 85° C and 60° C @ 95% RH non-condensing
Physical Characteristics	Dimensions (L x W)	146 x 102 mm (5.7" x 4")
	Weight	0.64 kg (1.41 lb), weight of total package
	Total Height	30.5mm for PCM-9362N/NC/NCF/NZ/NZ2 34.5mm for PCM-9362D/DF

## Block Diagram



## Ordering Information

Model	CPU	L2 Cache	Memory	Power	Expansion	VGA	LVDS	GbE	Audio	SATAII	USB 2.0	Mini PCIe	CF	RS-232	RS-232/422/485	Thermal Solution	Operating Temperature
PCM-9362NC-S6A1E	Atom N450	512 KB	SODIMM	5 V	-	1	18-bit	2	Yes	2	6	Full-size	1	3	1	Passive	0 - 60° C
PCM-9362N-S6A1E	Atom N450	512 KB	SODIMM	12 V	-	1	18-bit	2	Yes	2	6	Full-size	1	3	1	Passive	0 - 60° C
PCM-9362D-S6A1E	Atom D510	1 MB	SODIMM	12 V	-	1	18-bit	2	Yes	2	6	Full-size	1	3	1	Active	0 - 60° C
PCM-9362DF-S6A1E	Atom D510	1 MB	SODIMM	12 V	MIO-160	1	18-bit	2	Yes	2	6	Full-size	1	3	1	Active	0 - 60° C
PCM-9362NZ-1GS6A1E	Atom N450	512 KB	1GB bundle	12 V	-	1	18-bit	2	Yes	2	6	Full-size	1	3	1	Passive	-20 - 80° C
PCM-9362NZ-1GS6A1E	Atom N450	512 KB	1GB bundle	12 V	-	1	18-bit	2	Yes	2	6	Full-size	1	3	1	Passive	-40 - 85° C

Note: Passive = fanless; Active = with fan

## Packing List

Part No.	Description	Quantity
	PCM-9362 SBC	
	Startup Manual	
	Utility CD	
968900002	mini Jumper pack	1
1700000265	ATX power cable (PCM-9362NC series only)	1
1700017838-11	SATA cable with lock 30cm	1
1703060191	PS/2 cable 19cm	1
1701140201	COM2 IDE D-SUB 20 cm cable	1
1703100121	USB 2 x 5P-2.0 12 cm W/BKT cable	2
1703100152	Audio cable 20cm	1
1700260250	LPT IDE 26P D-SUB 25 cm cable	1
1700001795	COM3/4 cable 19cm	1
1960050034N001	CPU N450 heatsink (75 x 62 19.9 mm) for PCM-9362N series	1
1960050035N001	CPU D510 cooler (75 x 62 x 24.4 mm) for PCM-9362D	1
1960024933S00B	ICH8M Heatsink for PCM-9362 series (38.1x33.6x7.5mm)	1

## Rear I/O View



## Optional Accessories

Part No.	Description
MIO-6250-00A1E	MIO-160 module w/ 3 10/100 Ethernet (RTL8139)
MIO-6260-00A1E	MIO-160 IO module w/2 COM, 4 USB
MIO-6260L-00A1E	MIO-160 IO module w/2 COM, 4 USB, 1 10/100 Ethernet
1700016161	AT Power cable, 2 x 6P to 3 x 4P 10 cm
1700016141	AT power cable, 2 x 6P to 2 10P 10 cm
1960047470N001	Heat spreader(97 x 75 18.5 mm)
1655003865	Right angle 12V power connector 2*2P
1655003866	Right angle 5V power connector 2*6P
1700018436	Inverter 5P to SATA power 15P cable 10cm
ACK-A001E	Embedded chassis for PCM-9362(12V)/9363 series (System dimension with mounting bracket: 230 x 65 x145 mm)

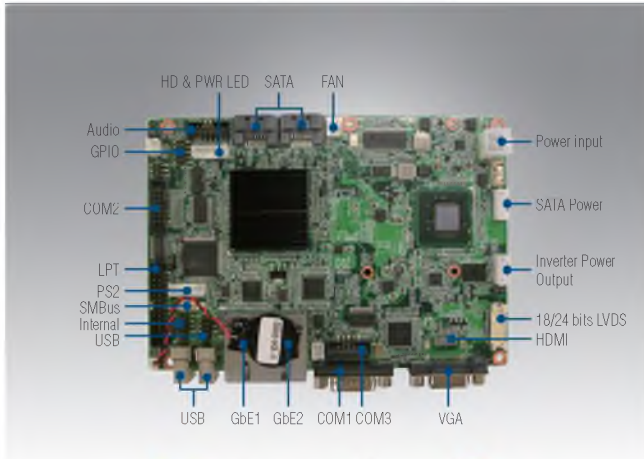
Note: MIO-160 modules are supported by PCM-9362NF/DF version

## Embedded OS/API

Embedded OS/API	Part No.	Description
Win XPE	2070010314	XPE WES2009 V4.0 MUI24
WinCE	2070009693	CE 6.0 Pro PCM-9362 V1.3 ENG
	2070010935	CE 7.0 Pro PCM-9362 V1.0 ENG
WES 7	2070009835	Image WES7E V5.0 ENG
QNX		6.5
Vxwork		6.8
Linux		Ubuntu 10.04.1
Software API	205E362010	SUSI 3.0 SW API for PCM-9362 B: 20091117 XP

# PCM-9363

Intel® Atom™ N455/D525 3.5" SBC, DDR3, 18/24-bit LVDS, VGA/HDMI, 2 GbE, Mini PCIe, CF



## Features

- Embedded Intel® Atom™ N455 Single Core/ D525 Dual Core processor + ICH8M, DDR3 memory support
- Intel Gen 3.5 DX9, MPEG2 Hardware Decoder, multiple display: 18/24-bit LVDS, VGA or 1080P HDMI
- Supports extended temperature -40° C ~ 85° C
- Two Intel GbE connections; Rich I/O with 3 COM, 2 SATA, 6 USB and GPIO connectors
- Supports SUSIAccess and Embedded Software APIs

### Software APIs:



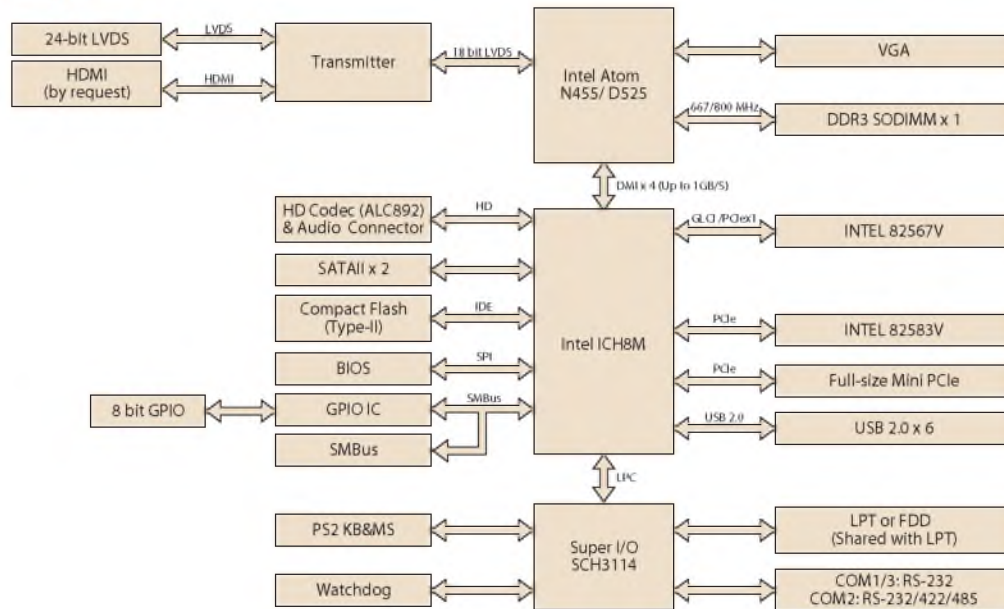
### Utilities:



## Specifications

Processor System	CPU	Intel Atom N455 Single Core 1.66 GHz Processor Intel Atom D525 Dual Core 1.8 GHz Processor
	Frequency	1.66GHz for N455, 1.8GHz for D525
	L2 Cache	512KB for N455, 1MB for D525
	System Chipset	Intel N455/D525 + ICH8M
Memory	BIOS	AMI 16 Mbit Flash BIOS
	Technology	DDR3 667 MHz for N455, 800 MHz for D525
	Max. Capacity	4GB for D525, and 2GB for N455
Display	Socket	1 x 204-pin SODIMM
	Chipset	Intel Atom Processor N455 1.66GHz/D525 1.8GHz
	VRAM	Optimized Shared Memory Architecture up to 224 MB system memory
	Graphic Engine	Intel Gen 3.5 DX9, MPEG2 Decode in HW Embedded Gen3.5+ GFX Core
	LVDS	LVDS: Single channel 18/24-bit LVDS up to WXGA 1366 x 768
	VGA	Intel Atom N455 Single Core up to 1400 x 1050 (SXGA), Intel Atom D525 Dual Core up to 2048 x 1536
Ethernet	HDMI	Supported by request (the HDMI resolution has to be set with the Chronlet Utility in Windows XP/XP Embedded) Supports Hot Plug Detection (HPD) for HDMI
	Dual Display	VGA+LVDS
	Speed	10/100/1000 Mbps (Supports Wake on LAN)
	Controller	GbE1 Intel 82567V, GbE2 Intel 82583V
Audio	Connector	RJ-45 on GbE1, GbE2
	Chipset	Realtek ALC892 High Definition Audio (HD), Line-in, Line out, Mic-in
WatchDog Timer		Output System reset, Programmable counter from 1 ~ 255 minutes/ seconds
Storage	CompactFlash	CompactFlash type I/II (Primary Master IDE Channel)
	SATA	2 SATA II (Max. Data Transfer Rate 300 MB/s), 1 internal SATA power connector
Rear I/O	Serial	1 (COM1 supports RS-232) (ESD protection for RS-232: Air gap ±15kV, Contact ±8kV)
	Ethernet	2 (10/100/1000 Mbps)
	VGA	1
	HDMI	1 (Support by request)
	USB	2
Internal I/O	USB	4 x USB 2.0
	Serial	2 x COM (ESD protection for RS-232: Air gap ±15kV, Contact ±8kV) COM3 supports RS-232, COM2 supports RS-232/422/485 (Supports RS-485 auto flow control)
	Parallel(LPT)	1
	SMBus	1
	PS/2 KB/Mouse	1
	GPIO	8-bit GPIO
Expansion	Mini PCIe	1 (Full-size)
Power	Power Type	AT
	Power Supply Voltage	Supports single 12V input, ± 10%
	Power Consumption (Typical)	PCM-9363N: 0.74 A @ 12 V (8.88 W) PCM-9363D: 0.86 A @ 12 V (10.32 W)
	Power Consumption (Max. test in HCT)	PCM-9363N: 0.86 A @ 12 V (10.32 W) PCM-9363D: 1.18 A @ 12 V (14.16 W)
	Power Management	APM, ACPI
Environment	Battery	Lithium 3 V/210 mAH
Physical Characteristics	Operational	0 ~ 60° C (32 ~ 140° F) (Operational humidity: 40° C @ 95% RH Non-Condensing)
	Non-Operational	-40° C ~ 85° C and 60° C @ 95% RH Non-Condensing
	Dimensions (L x W)	146 x 102 mm (5.7" x 4")
	Weight	0.64 kg (1.41 lb), weight of total package
Physical Characteristics	Total Height	30.5mm for PCM-9363N 34.5mm for PCM-9363D

## Block Diagram



## Ordering Information

Part No.	CPU	L2 Cache	Memory	LVDS	VGA	GbE	Audio	RS-232	RS-232/422/485	USB 2.0	SATAII	CF	Mini PCIe	Thermal Solution	Operational Temp.
PCM-9363N-S6A1E	Atom N455	512 KB	SODIMM	18/24-bit	Yes	2	Yes	2	1	6	2	1	Full-size	Passive	0 – 60° C
PCM-9363D-S8A1E	Atom D525	1 MB	SODIMM	18/24-bit	Yes	2	Yes	2	1	6	2	1	Full-size	Active	0 – 60° C
PCM-9363NZ-1GS6A1E	Atom N455	512 KB	1 GB bundle	18/24-bit	Yes	2	Yes	2	1	6	2	1	Full-size	Passive	-20 – 80° C
PCM-9363NZ21GS6A1E	Atom N455	512 KB	1 GB bundle	18/24-bit	Yes	2	Yes	2	1	6	2	1	Full-size	Passive	-40 – 85° C

Note: Passive = fanless; Active = with fan HDMI function supported by request

## Packing List

Part No.	Description	Quantity
	PCM-9363 SBC	
	Startup Manual	
	Utility CD	
9689000002	mini Jumper pack	
1700008941	SATA Cable w/lock 30 cm	1
1703060191	PS/2 cable 19 cm	1
1701140201	COM2 IDE D-SUB 20 cm cable	1
1703100121	USB 2 x 5P-2.0 12 cm W/BKT cable	2
1700018839	Audio Cable 20 cm	1
1700260250	LPT IDE 26P D-SUB 25 cm cable	1
1700018785	Internal SATA power cable 35cm	1
1700100250	COM3 Cable IDE#2 10P-2.0/D-SUB 9P (M) 25 cm	1
1960050034N001	CPU N455 heatsink (75 x 62 x 19.9 mm) for PCM-9363N series	1
1960050035N001	CPU D525 cooler (75 x 62 x 24.4 mm) for PCM-9363D	1
1960024933S00B	ICH8M Heatsink for PCM-9363 series (38.1 x 33.6 x 7.5 mm)	1
1960050034N011	PCM-9363NZ/NZ2 CPU N455 heatsink (85 x 62 x 24.9 mm)	1

## Rear I/O View



PCM-9363N-S6A1E  
PCM-9363D-S8A1E  
PCM-9363NZ-1GS6A1E  
PCM-9363NZ21GS6A1E

HDMI supported by request

## Optional Accessories

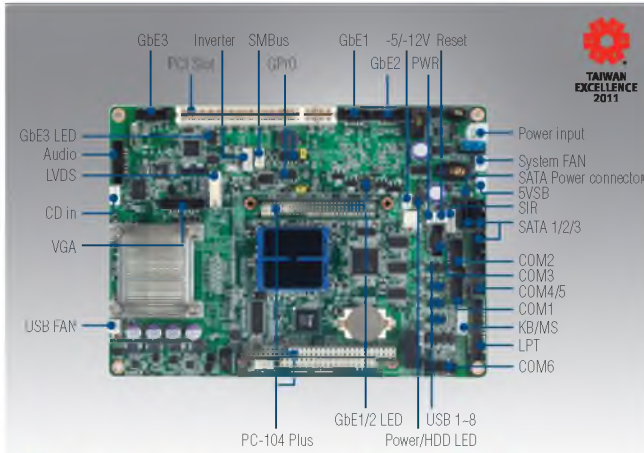
Part No.	Description
1960047470N001	Heat spreader (97 x 75 x 18.5 mm)
1655003865	Right angle power connector 2*2P
ACK-A001E	Embedded Chassis for PCM-9362(12V)/9363 series (System dimensions with mounting bracket: 230 x 65 x 145 mm)

## Embedded OS/API

Embedded OS/API	Part No.	Description
Win XPE	2070010314	XPE WES2009 PCM-9363 V4.0 24MUI
	2070010313	XPE WES2009 PCM-9363 V4.0 ENG
WinCE	2070010331	CE 6.0 R3 Pro PCM-9363 V6.0.0 ENG (3COM)
	2070011150	Image CE 7.0 Pro PCM-9363 V1.0 ENG
WES7	2070009835	Image WES7E Intel Lunar V5.0 ENG
QNX		6.5
Vxwork		6.8
Linux		Ubuntu 10.04.1
Software API		SUSI V3.0

# 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

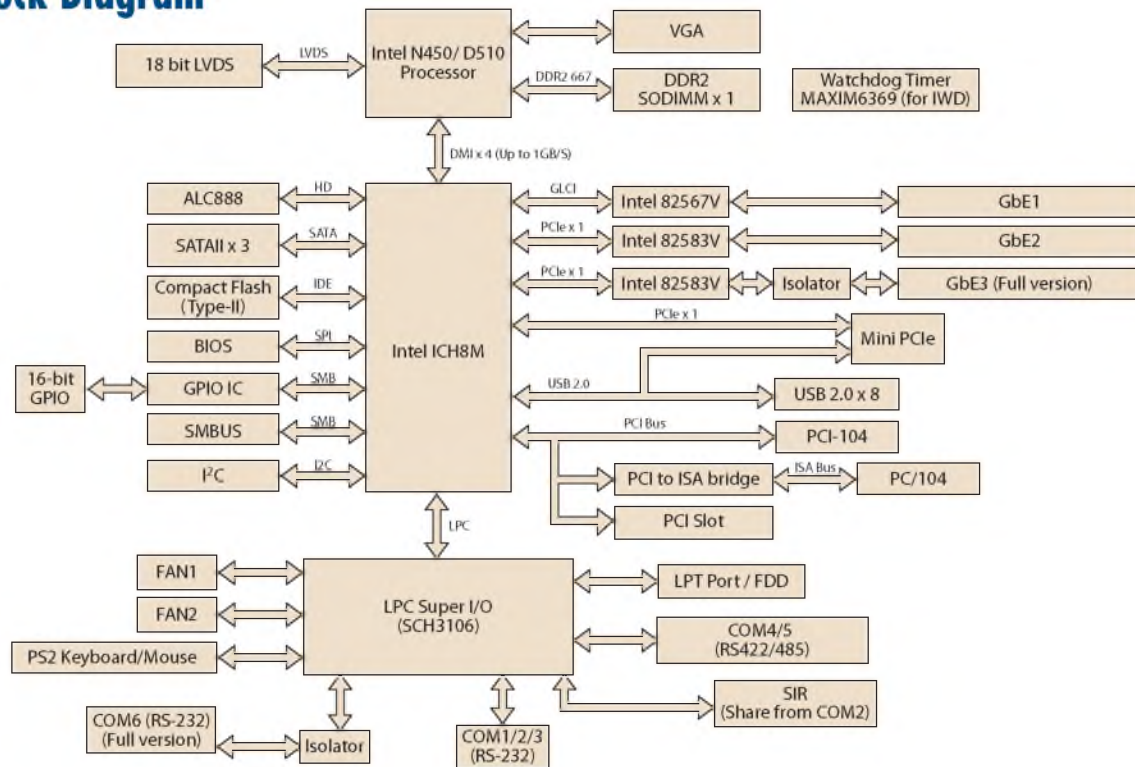
**Utilities:** BIOS Flash, Monitoring



## 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)
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)
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 (W1T): monitor the system status before OS is ready (programmable 10ms, disable, 1s, 60s) Watchdog timer2 (W2T): 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 GbE x 3 (RJ-45 connector through the cable and GbE3 is Full version)
	Ethernet	
	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
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)

## 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 PCle	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

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