

PCA-6782

Intel® Atom N450/D510, ISA Half-Sized SBC with VGA/LVDS/GbE LAN/SATA/COM /CFC/ FDD/PC104

Preliminary



CE FCC

Features

- Ultra low power, fan-less N450 CPU and maximum 2 GB DDR2 667 memory (Only for N SKU)
- Dual core high performance D510 CPU and maximum 2 GB DDR2 667 memory (Only for D SKU)
- VGA/LVDS dual video outputs
- Optional module for 4 x RS-485 w/ auto-flow control
- Supports embedded software APIs and Utilities

Software APIs:



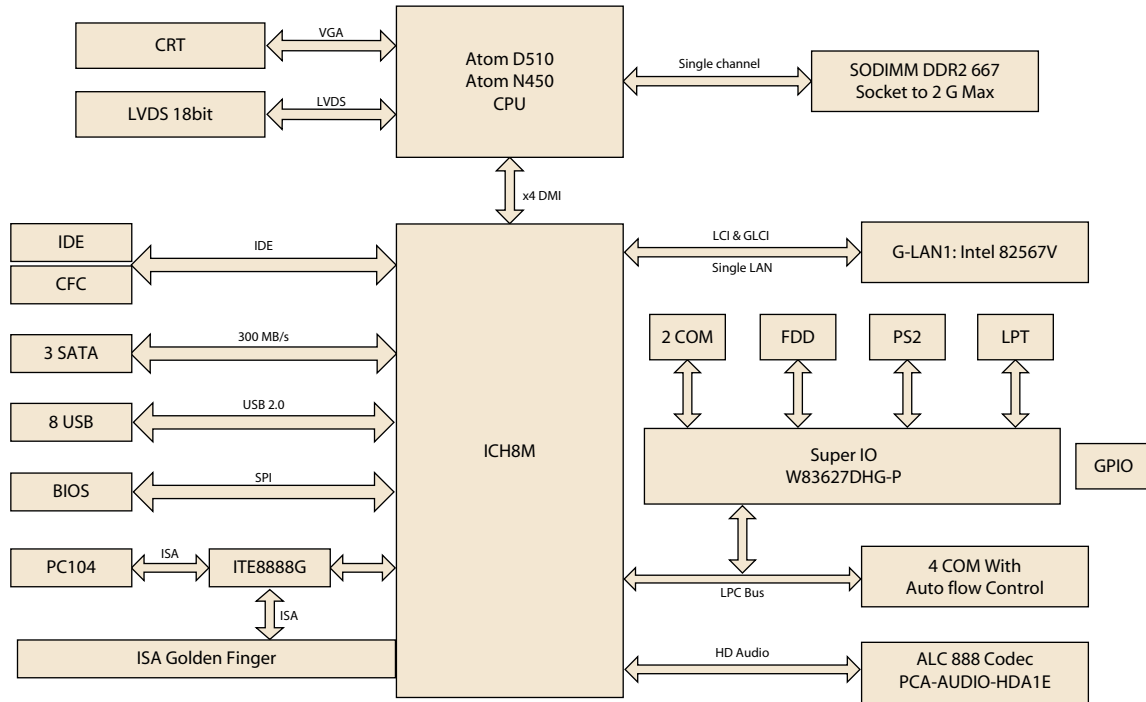
Utilities:



Specifications

Processor System	CPU	Intel Atom N450	Intel Atom D510					
	Speed	1.66 GHz	1.66 GHz					
	L2 Cache	512 KB	1 MB					
	Chipset	Intel ICH8M						
	BIOS	AMI 16Mb SPI Flash						
	FSB	800/1066/1333 MHz						
Bus	PCI	N/A						
	ISA	16-bit/ Gold Finger						
Memory	Technology	Single channel DDR2 667 MHz						
	Max. Cap.	max 2 GB SODIMM						
	Socket	200-pin DIMM x 1						
Graphic	On board	Embedded Gen3.5+ GFX Core technology, Direct X 9/Pixel Shader 2.0 compliant						
	VRAM	Shared 224 MB						
	Video Intercae	15 pin VGA D-sub connector x1/On-board LVDS pin header x 1 (supports single channel 18-bit LVDS)						
	Video Output	VGA: Supports up to SXGA 1400 x 1050 @ 60 Hz for N SKU, up to 2048 x 1536 @ 60 Hz for D SKU LVDS: Supports 18-bit single channel and up to WXGA 1366 x 768 or 1280 x 800 for both N and D SKUs Dual Display: CRT + LVDS, support extended mode and clone mode for both N and D SKUs						
Ethernet	Interface	10/100/1000Base-T						
	Controller	LAN1: Intel 82567V						
	Connector	RJ45 with LED Connector x1						
SATA 2	Max. transfer rate	300MB/s						
	Channel	3						
EIDE	Mode	ATA 100/66/33						
	Channel	1 (Support up to 2 IDE devices; Master device is alternative for CF socket)						
I/O Interface	USB 2.0	8 ports on the SHB						
	Serial	Two RS-232 on-board pin-headers, plus four ports of RS-485 with auto-flow control by module (Advantech P/N: PCA-COM485-00A1E)						
	Parallel	1 (EPP/ECP)						
	FDD	1						
	PS/2	1 (for mouse and keyboard, an Y cable is included in the package)						
Watchdog Timer	Output	Interrupt, system reset						
	Interval	Programmable 1, 2, 4, 8, ..., 255 sec/min						
Miscellaneous	Audio Output	Intel High Definition audio interface (requires an audio extension module, P/N: PCA-AUDIO-HDA1E)						
	Test Equipment	Atom D510 CPU 1.66 GHz; Memory: 1 Piece of 2 GB DDR2 667 MHz SODIMM; Storage: One IDE HDD and one SATA CD ROM						
Power Requirement	Test program	BurnIn test 6.0						
	Voltage	+12 V	+5 V	+3.3 V	+5 SBY	-12 V	-5 V	Total
	Current	0.228 A	2.952 A	0 A	0.060 A	0 A	0 A	17.796 W
	Test Equipment	Atom N450 CPU 1.66 GHz; Memory: 1 Piece of 2 GB DDR2 667 MHz SODIMM; Storage: One IDE HDD and one SATA CD ROM						
	Test program	BurnIn test 6.0						
	Voltage	+12 V	+5 V	+3.3 V	+5 SBY	-12 V	-5 V	Total
	Current	0.192 A	2.532 A	0 A	0.060 A	0 A	0 A	15.264 W
Environment	Status	Operating		Non-Operating				
	Temperature	0 ~ 60° C (32 ~ 140° F) (operation humidity: 40° C @ 85% RH Non-Condensing)		-40 ~ 85° C and 60° C @ 95% RH Non-Condensing				
Physical	Dimensions	185 mm (L) x 122 mm (W) (7.3" x 4.8")						

Board Diagram



Ordering Information

P/N	CPU	Fan-Less	LAN	PC104	LVDS	FDD	SATA	USB	RAM
PCA-6782D-S6A1E	Atom D510	No	single GbE LAN	Yes	Yes	1	3	8	Socket to 2G
PCA-6782N-S6A1E	Atom N450	Yes	single GbE LAN	Yes	Yes	1	3	8	Socket to 2G

Accessories

Part Number	Description
PCA-COM485-00A1E	Extension module for four ports of RS-422/485 with auto-flow control function
PCA-AUDIO-HDA1E	Extension module for 7.1 channel High Definition audio
1700340640	FDD cable

Bracket View



PCA-6782D-S6A1E
PCA-6782N-S6A1E

Packing List

Part Number	Description	Quantity
1960046526N001	CPU Cooler for Atom D510 CPU (Only Available for D SKU)	1
1701400452	Ultra ATA 66/100 HDD cables	1
1700003194	Serial ATA HDD data cable	2
1703150102	Serial ATA HDD power cable	2
1700008954	Print port & COM port cable	1
1700002343	ATX Feature Cable	1
1700014398	4-port USB cable kit	1
1700060202	Y cable for PS/2 keyboard and PS/2 mouse	1
1703070101	ATX Power Cable 20P/7P 10 cm	1
1703080101	AT Power Cable	1
9689000002	Jumper Pack	1
	Warranty card	1
	PCA-6782 Startup Manual	1
	CD with driver utility and manual (in PDF format)	1