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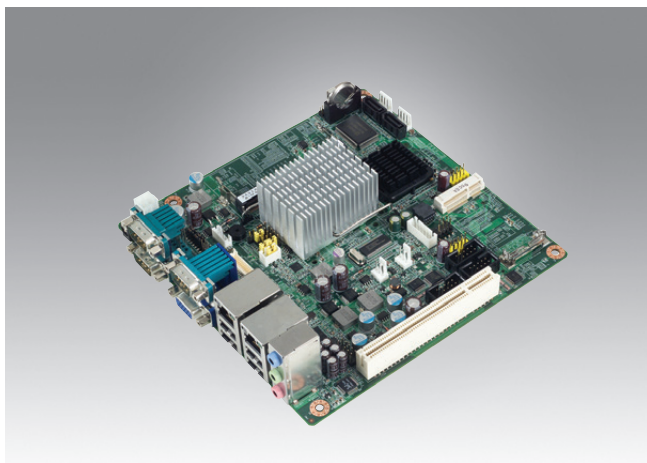
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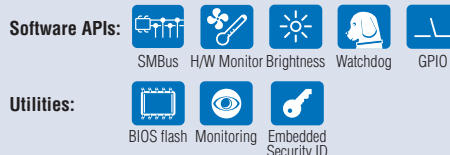
# AIMB-212

Intel® Atom™ N450/D510 Mini-ITX with CRT/LVDS, 6 COM, and Dual LAN



## Features

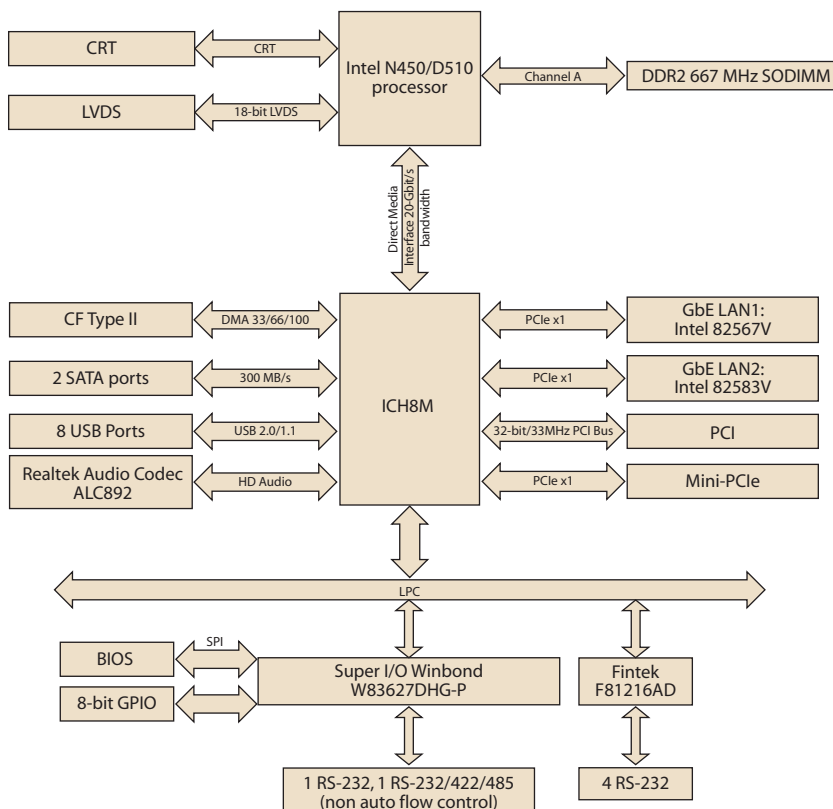
- Supports Intel® Atom™ processor N450 and D510 dual core
- One 200-pin SO-DIMM up to 2 GB DDR2 667 MHz SDRAM
- Supports 1 PCI and 1 Mini-PCIe expansion, 6 serial ports, 8 USB, and CF
- Lower total cost of ownership with DC12V support
- Supports SUSIAccess and Embedded Software APIs



## Specifications

		Intel Atom N450	Intel Atom D510
Processor System	CPU (45 nm)	Intel Atom N450	Intel Atom D510
	Max. Speed	1.6 GHz (single core)	1.66 GHz (dual core)
	L2 Cache	512 KB	1 MB
	Chipset	ICH8M	
	BIOS	AMI 16 Mbit PSI	
Expansion Slot	PCI	32-bit/33 MHz, 1 slot	
	Mini-PCIe	1	
	PCIe	-	
Memory	Technology	Single channel DDR2 667 MHz not compatible with DDR2 533MHz	
	Max. Capacity	2 GB	
	Socket	1 x 200-pin SO-DIMM (Non-ECC)	
Graphics	Controller	Embedded Gen3.5+ GFX Core, 200/400-MHz render clock frequency for N450/D510	
	VRAM	Shared system memory up to 224 MB SDRAM	
	VGA	Supports up to SXGA 1400 x 1050 @ 60Hz for Atom N450, up to 2048 x 1536 for Atom D510	
	LVDS	Supports 18-bit single channel and up to WXGA 1366 x 768	
	TV-out	None	
Dual Display		CRT + LVDS, support extended mode and clone mode	
Ethernet	Interface	10/100/1000 Mbps	
	Controller	GbE LAN1: Intel 82567V; GbE LAN2: Intel 82583V	
	Connector	RJ-45 x 2	
SATA	Max Data Transfer Rate	300 MB/s (SATA 2.0)	
	Channel	2	
EIDE	Mode	None	
	Channel	None	
SSD	CompactFlash	Supports CompactFlash Type I/II	
Rear I/O	CRT	1	
	Ethernet	2	
	USB	4 (USB 2.0)	
	Audio	3 (Mic-in, Line-out, Line-in)	
	Serial	3 (2 x RS-232, 1 x RS-232/422/485)	
	Parallel	-	
	DC Jack	1 (2.5 mm)	
Internal Connector	LVDS & Inverter	1	
	USB	4 (USB 2.0)	
	Serial	3 (RS-232)	
	IDE	None	
	SATA	2 (SATA 2.0)	
	SATA PWR Connector	2	
	CompactFlash	1	
	Parallel	None	
Watchdog Timer	DIO	8-bit GPIO	
Output		System reset	
	Interval	Programmable 1 ~ 255 sec/min	
Power	Power Type	Single voltage 12V DC input; 1 x External DC jack; 1 x Internal 4-pin (2x2) power connector; Supports AT/ATX mode	
	Power Consumption	12 V @ 3.4 A (Intel D510 1.66 GHz processor/DDR2 800 MHz 2 GB, SATA HDD x1) 12 V @ 2.73 A (Intel N455 1.66 GHz processor/DDR2 800 MHz 2GB, SATA HDD x1)	
Environment	Operating	Non-Operating	
	Temperature	0 ~ 60° C (32 ~ 140° F)	-40 ~ 85° C (-40 ~ 185° F)
Physical Characteristics	Dimensions	170 mm x 170 mm (6.69" x 6.69")	

## Block Diagram



## Ordering Information

Part Number	CPU	SC/DC	GbE	COM	LVDS	Thermal Solution
AIMB-212N-S6A1E	Atom N450	Single core	2	6	1, 18-bit	Passive
AIMB-212D-S6A1E	Atom D510	Dual core	2	6	1, 18-bit	Active

Note: Passive = fanless; Active = with fan

## Optional Accessories

Part Number	Description
1700003195	USB cable with two ports, 17.5 cm
1700002204	USB cable with two ports, 27 cm
1700008461	USB cable with four ports, 30.5 cm
1757003995	Adapter AC100-240V 60W +12V/5A
1700018699	KB/MS cable 1*6P-2.5/DIN-6P (F)*2, 25 cm

## I/O View



AIMB-212N-S6A1E  
AIMB-212D-S6A1E

## Optional Chassis

Part Number	Description
AIMB-B2000-00YE	Mini-ITX chassis with optional DC Adaptor

## Packing List

Part number	Description	Quantity
1700003194	SATA HDD cable	2
1700017461	SATA power cable	2
1700001788	Serial port cable	3
1960046526N001	CPU cooler (For Atom D510 only)	1
1960046435T000	I/O port bracket	1
2002021210	Startup manual	1
2062021200	Driver CD	1

## Embedded OS/API

OS/API	Part No.	Description
Win XPE	2070009861	XPE WES2009 AIMB-212 V4.0 JPY
Win CE	2070009695	CE 6.0 Pro AIMB-212 V1.3 ENG
	2070011085	CE 7.0 Pro AIMB-212 V1.0 ENG
Software API	205E212000	SUSI 3.0 SW API for AIMB-212 B:20091115 XP