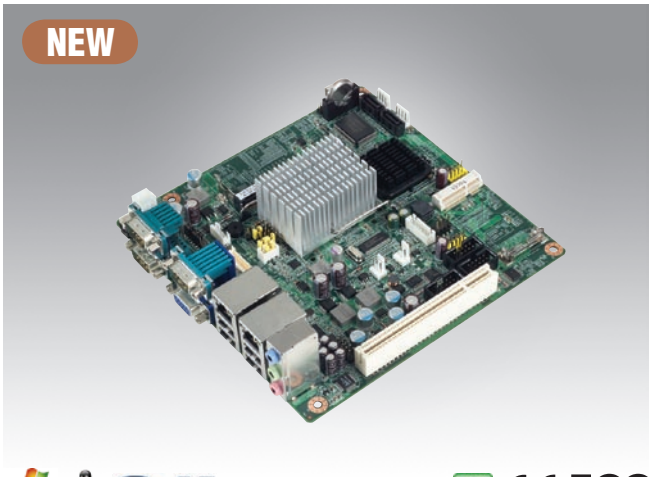
AIMB-212

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



Features

- Support Intel® Atom N450 and D510 dual core processor
- One 200-pin SODIMM up to 2 GB DDR2 667 MHz SDRAM
- Support 1 PCI and 1 Mini-PCIe expansion, 6 serial ports, 8 USB, and CF
- Lower total cost of ownership with DC12V support
- Supports embedded software APIs and Utilities

Software APIs: SMBus, H/W Monitor, Brightness, Watchdog, GPIO

Utilities: BIOS flash, eSOS, Monitoring, Flash Lock, Embedded Security ID

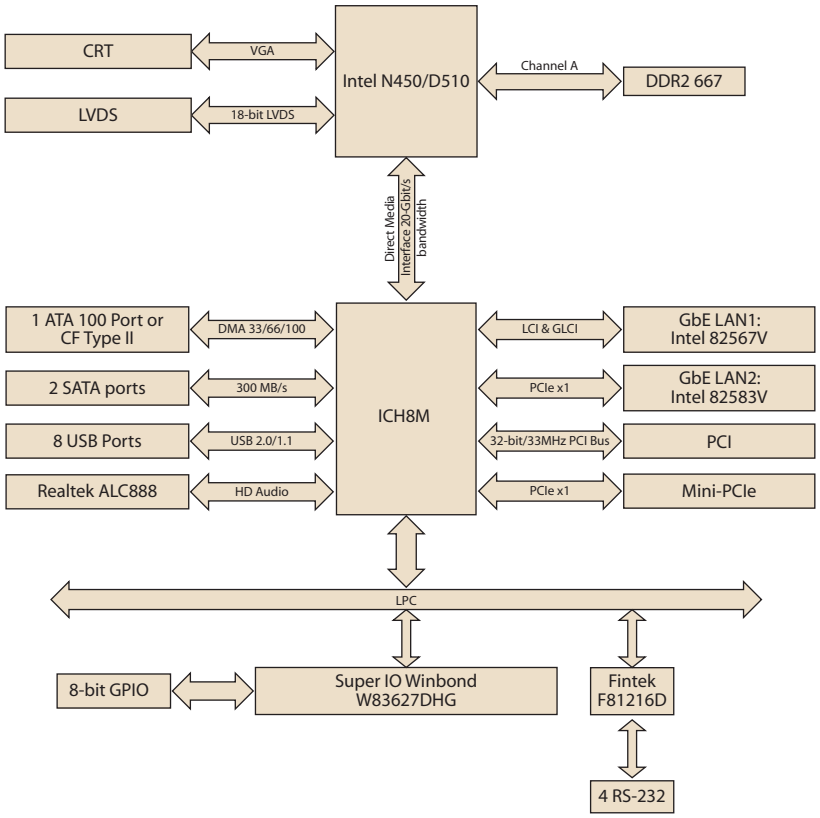
Note: eSOS need ODM BIOS by request

Specifications

Processor System	CPU (45 nm)	Intel Atom N450	Intel AtomD510
	Max. Speed	1.66 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 DDR2533 MHz	
	Max. Capacity	2 GB	
	Socket	1 x 200-pin SODIMM	
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	
	Channel	2	
EIDE	Mode	None	
	Channel	None	
SSD	CompactFlash	Supports CompactFlash Type I/II	
Rear I/O	VGA	1	
	Ethernet	2	
	USB	4 (USB 2.0 compliant)	
	Audio	3 (Mic-in, Line-out, Line-in)	
	Serial	3 (2 of RS-232,1 of RS-232/422/485)	
	Parallel	-	
	DC jack	1 (2.5 mm)	
Internal Connector	LVDS & Inverter	1	
	USB	4 (USB 2.0 compliant)	
	Serial	3 (RS-232)	
	IDE	None	
	SATA	2	
	SATA PWR connector	2	
	CompactFlash	1	
	Parallel	None	
	DIO	8-bit GPIO	
Watchdog Timer	Output	System reset	
	Interval	Programmable 1 ~ 255 sec/min	
Power Requirement	Typical	DC 12V Input (Tolerance ±10%)	
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")	

All product specifications are subject to change without notice

Board Diagram



Ordering Information

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

Bracket View



Packing List

Description	Quantity
AIMB-212 SBC	x 1
SATA HDD cable	x 2
SATA power cable	x 2
Serial port cable	x 3
CPU cooler (For Atom D510 only)	x 1
I/O port bracket	x 1
Startup manual	x 1
Driver CD	x 1

Accessories

Part Number	Description
1700003195	USB cable with four ports, 17.5 cm
1700002204	USB cable with four ports, 27 cm
1700002314	USB cable with four ports, 30.5 cm
1757003062	Adapter AC100-240V 60W +12V/5A