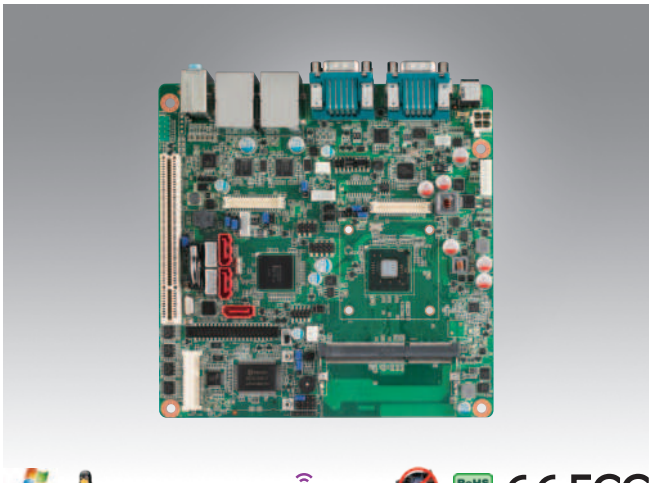
AIMB-214

Intel® Atom™ N2600/D2550 Mini-ITX with CRT/HDMI/2 LVDS, 6 COM, and Dual LAN



Features

- Supports Intel® Atom™ processor N2600, and D2550 dual core
- One 204-pin SO-DIMM up to 4 GB DDR3 1066 MHz SDRAM
- Supports 1 PCI and 1 Mini-PCIe expansion, 6 serial ports, 6 USB, and CFast
- Lower total cost of ownership with DC12V support, and supports 24/48-bit LVDS
- Onboard TPM 1.2 support
- Supports SUSIAccess and Embedded Software APIs

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

Utilities: BIOS flash, Monitoring, Embedded Security ID

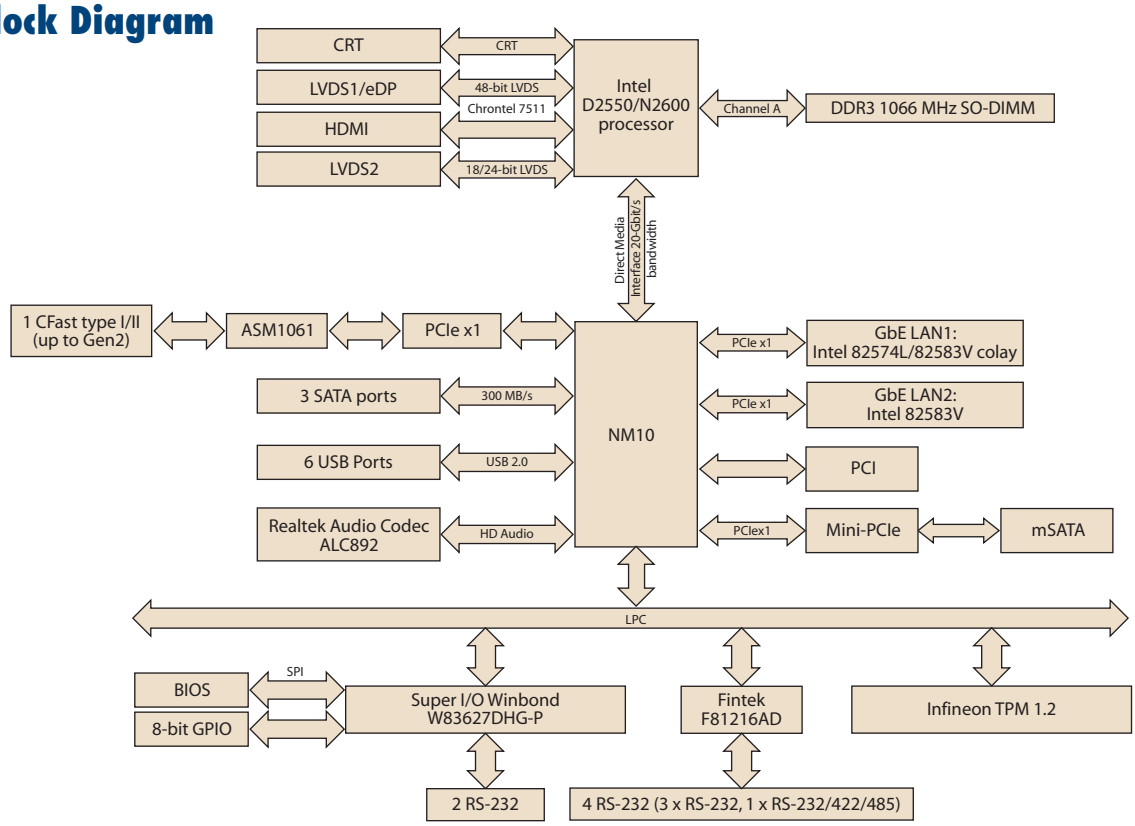
Specifications

Processor System	CPU (32nm)	Intel Atom N2600	Intel Atom D2550
	Max. Speed	1.6 GHz (Dual core)	1.86 GHz (Dual core)
	L2 Cache	1MB	1MB
	Chipset	NM10	NM10
	BIOS	AMI 16Mbit SPI	AMI 16Mbit SPI
Expansion Slot	PCI	32-bit/33 MHz, 1 slot	
	Mini-PCIe	1, F/S support mSATA	
	PCIe	-	
Memory	Technology	Single channel DDR3 1066 MHz SDRAM	
	Max. Capacity	4 GB	
	Socket	1 x 204-pin SO-DIMM (Non-ECC)	
Graphics	Controller	Embedded Gen3.5+ GFX Core, 400/640 MHz render clock frequency for N2600/D2550	
	VRAM	Shared system memory up to 224 MB SDRAM	
	VGA	Supports up to SXGA 1920 x 1200 @ 60 MHz	
	LVDS	Supports Dual Channel 48-bit: Max. resolution up to 2560 x 1600 (D2550); 1600 x 1200 (N2600). co-lay eDP port (optional) LVDS2 Support 24-bit single channel up to 1400 x 800 on D2550; 18-bit single channel up to 1366 x 768 on N2600	
	HDMI	Supports up to 1920 x 1200 @ 60 MHz	
	Dual Display	VGA+HDMI, VGA+LVDS, VGA+eDP (optional), Supports extended mode and clone mode	
Ethernet	Interface	10/100/1000 Mbps	
	Controller	GbE LAN1: Intel 82574L/82583V co-lay GbE LAN2: Intel 82583V	
	Connector	RJ-45 x 2	
SATA	Max Data Transfer Rate	300 MB/s (SATA 2.0)	
	Channel	3	
EIDE	Mode	None	
	Channel	None	
SSD	CFast CompactFlash	Supports CFast Type I/II (up to Gen2)	
Rear I/O	CRT	1	
	HDMI	1	
	Ethernet	2	
	USB	4 (USB 2.0)	
	Audio	3 (Mic-in, Line-out, Line-in)	
	Serial	2 (1 of RS-232,1 of RS-232/422/485)	
	KB/MS	1	
	DC jack	1 (2.5 mm)	
Internal Connector	LVDS & Inverter	2	
	eDP	1 (optional, by removing LVDS1)	
	USB	2 (USB 2.0)	
	Serial	4 (RS-232), only COM6 supply 5V/12V	
	IDE	None	
	SATA	3 (SATA 2.0)	
	SATA PWR Connector	2	
	CFast	1	
	Parallel	None	
	DIO	8-bit GPIO	
Watchdog Timer	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	
	Typical Power Consumption	Windows IDOL: 17.8 W (Intel N2600 1.6 GHz processor/DDR3 1333 MHz 4 GB)	
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

Last updated : 25-Aug-2016

Block Diagram



Ordering Information

Part Number	CPU	SC/DC	GbE	COM	LVDS	TPM	Thermal solution
AIMB-214E-S6A2E	D2550	Dual core	2	6	2, LVDS1: 48-bit LVDS; LVDS2: 24-bit LVDS	1	Active
AIMB-214U-S6A2E	N2600	Dual core	2	6	2, LVDS1: 48-bit LVDS; LVDS2: 24-bit LVDS	1	Passive

Note: Passive = fanless; Active = with fan

*() BOM options available on MP version.

Packing List

Part Number	Description	Quantity
1960057364N001	AIMB-214E D2550 Fanless heatsink	1
1700003194	SATA HDD cable	2
1700018785	SATA power cable	2
1700008876	1-to-4 serial ports cable kit, 35 cm	1
1960046526N001	CPU cooler (For Atom D2550 only)	1
19Z0000645T000	I/O port bracket	1
2002021410	Startup manual	1
2062021402	Driver CD	1

Optional Accessories

Part Number	Description
1700003195	USB cable with two ports, 17.5 cm
1700002204	USB cable with two ports, 27 cm
96PSA-A60W12V1-1	Adapter AC100-240V 60W +12V/5A
1700018699	KBMS cable 1*6P-2.5/DIN-6P(F)*2, 25 cm

Optional Chassis

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

I/O View



AIMB-214E-S6A2E
AIMB-214U-S6A2E

Embedded OS/API

OS/API	Part No.	Description
WES7	2070010955	WES7E SP1 x32 AIMB-214 V5.1 ENG ATIP
	2070011710	WES7E SP1 x32 AIMB-214 V5.1 EN/TC/SC/ JP/KR
	2070011750	WES7E SP1 x32 AIMB-214 V5.1 ENG, SAP
Software API	TBD	SUSI V3.0 SW API for AIMB-214 WIN7