

# AIMB-203

Intel® Core™ i7/i5/i3 LGA 1150 Mini-ITX  
with CRT/DP++/DVI/LVDS, 9 COM, Dual  
LAN, PCIe x16



WISE-PaaS/RMM

## Features

- Supports Intel® 4th Gen Core™ i processor (LGA1150) with Intel H81 chipset
- Two 204-pin SO-DIMM up to 16 GB DDR3 1600 MHz SDRAM
- Supports dual display of CRT/DVI/DP++/LVDS
- Supports PCIe x16 (Gen 2) and two mini PCIe
- Supports WISE-PaaS/RMM and Embedded Software APIs

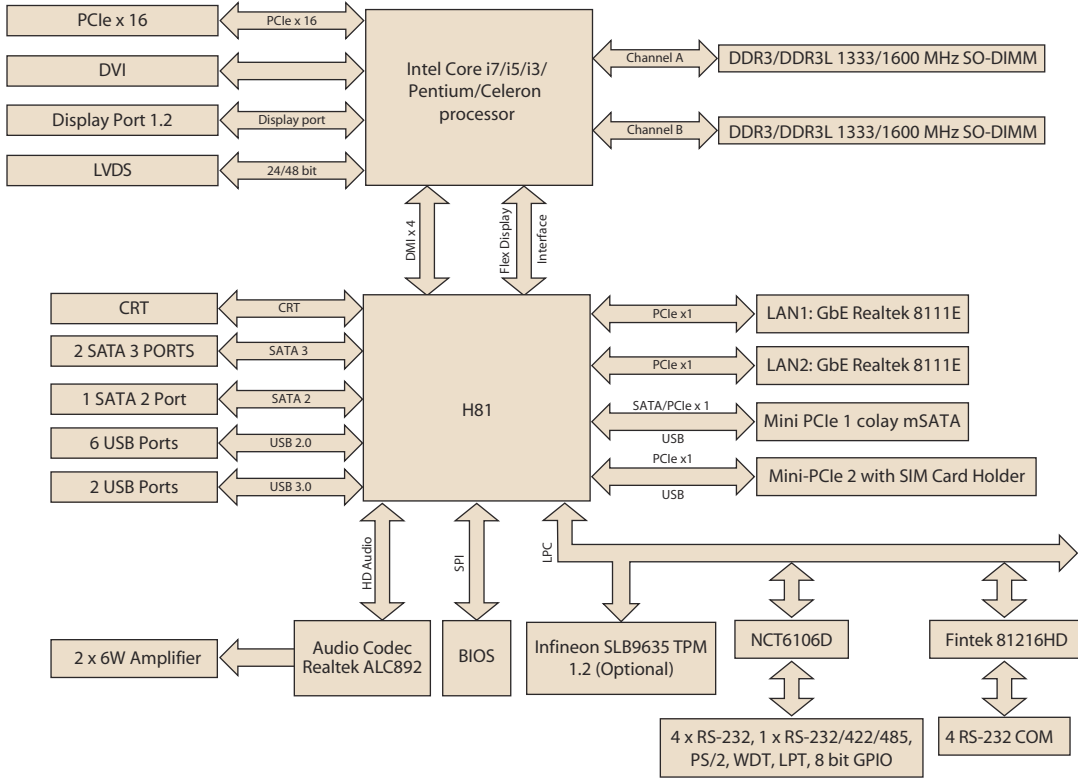
Software APIs: SMBus H/W Monitor Watchdog GPIO Brightness

Utilities: BIOS flash Monitoring

## Specifications

	CPU	i7-4790S	i7-4770S	i7-4770TE	i5-4590S/ 4590T	i5-4570S	i5-4570TE	i3-4360/ 4350T/4340TE	i3-4330	i3-4330TE	Pentium G3420	Pentium G3320TE	
Processor System	Core Number	4	4	4	4/4	4	2	2/2/2	2	2	2	2	
	Max Speed	3.2GHz	3.1 GHz	2.3 GHz	3.0/2.0 GHz	2.9 GHz	2.7 GHz	3.7/3.1/2.6 GHz	3.5 GHz	2.4 GHz	3.2 GHz	2.3 GHz	
	L3 Cache	8M	8M	8M	6M/6M	6M	4M	4M/4M/4M	4M	4M	3M	3M	
	TDP (W)	65W	65W	45W	65W/35W	65W	35W	54W/35W/35W	54W	35W	54W	35W	
	Chipset	H81											
	BIOS	AMI EFI 64 Mbit SPI											
Expansion Slot	PCI	-											
	Mini-PCIe	2, F/S x 1 support mSATA, H/S x 1 with SIM card holder											
	PCIe x16 (Gen2)	8 GB/s per direction, 1 slot											
Memory	Technology	Dual Channel DDR3/DDR3L @1.5V 1333/1600 MHz SDRAM											
	Max. Capacity	16 GB (up to 8 GB per SO-DIMM)											
	Socket	2 x 204-pin DDR3 SO-DIMM (Non-ECC)											
Graphics	Controller	Supports DirectX11.1, OpenGL 4.0 and OpenCL 1.2											
	CRT	Yes, supports max. resolution 1920 x 1200 @ 60Hz											
	LVDS	Supports dual channel 48 bit up to 1920 x 1200											
	Display Part 1.2	Supports max resolution 3840 x 2160 @ 60Hz											
	DVI	Supports max. resolution 1920 x 1200 @ 60Hz											
Dual Display	CRT/LVDS, CRT/DP, CRT/DVI, LVDS/DP, LVDS/DVI, DP/DVI												
Ethernet	Interface	10/100/1000 Mbps											
	Controller	GbE LAN1: Realtek 8111E; GbE LAN2: Realtek 8111E											
	Connector	RJ-45 x 2											
SATA	Max Data Transfer Rate	600 MB/s (SATA 3.0) / 300MB/s (SATA 2.0)											
	Channel	2 / 1											
Rear I/O	CRT	1											
	DVI-D	1											
	Display Port 1.2	1											
	Ethernet	2											
	USB	4 (2 USB 3.0 & 2 USB 2.0)											
	Audio	3 (Mic-in, Line-out, Line-in)											
	Serial	1(RS-232; COM 1 supports 5V/12V)											
	PS/2	2 (1 x keyboard and 1 x mouse)											
Internal Connector	USB	4 (USB 2.0 compliant)											
	LVDS/inverter	1/1											
	Serial	8 (7 x RS-232, 1 x RS-232/422/485; COM 5 supports RS-232/422/485 auto flow control; COM 2 supports 5V/12V by jumper selection)											
	IDE	-											
	SATA	2 (SATA 3.0); 1 (SATA2.0)											
	Mini-PCIe	2 (1 x F/S; 1 x H/S)											
	Parallel	1											
Watchdog Timer	Output	System reset											
	Interval	Programmable 1 ~ 255 sec/min											
	Power Requirements	Typical Power Consumption Win Idle 16.266 W (Intel Core i7-4770S 3.1GHz / DDR3 1600MHz 8GB x 2)											
Environment	Operating									Non-Operating			
	Temperature	0 ~ 60° C (32 ~ 140° F), depends on CPU speed and cooler solution									-40 ~ 85° C (-40 ~ 185° F)		
Physical Characteristics	Dimensions	170 x 170 mm (6.69" x 6.69")											

### Block Diagram



### Ordering Information

Part Number	Chipset	DP++	CRT	DVI-D	LVDS	GbE LAN	COM	SATA III/II	USB 3.0/2.0	MiniPCle	LPT	TPM	AMP	PClex16
AIMB-203G2-00A1E	H81	1	1	1	1	2	9	2/1	2/6	2 (1 x F/S; 1 x H/S)	1	(1)	2 x 6W	1
AIMB-203L-00A1E	H81	0	1	1	0	1	9	2/1	2/6	1 (F/S)	0	0	2 x 6W	1

\*( ) BOM options available on MP version.

### Packing List

Part Number	Description	Quantity
1700003194	SATA HDD cable	2
1700008876	1-to-4 serial ports, 35 cm	2
2006020310	Startup manual	1
2066020300	Driver CD	1
19Z0000567T000	I/O port bracket	1

### Optional Accessories

Part Number	Description
1703100121	USB cable with two ports, 12 cm
1703100261	USB cable with two ports, 26 cm
1703100350	USB cable with two ports, 34.5 cm
1700260250	Printer port cable, 25 cm
1960053207N001	LGA1150 CPU cooler for CPU TDP ≤ 65W, 92.9 (W) x 92.9 (L) x 46 (H) mm
1960060732N001	LGA1150 CPU cooler for CPU TDP ≤ 45W, 80 (W) x 80 (L) x 32.2 (H) mm

Note: Purchasing AIMB-203's proprietary CPU cooler from Advantech is a must, other brand's CPU cooler are NOT compatible with AIMB-203.

### Optional Chassis

Part Number	Description
AIMB-B2000-15ZE	Mini-ITX chassis with 150W ATX power supply

### Embedded OS/API

OS/API	Part No.	Description
WES7	2070013807	img WES7E AIMB-203 x64 V5.6.8 En/Jp/Tc/Sc
WES7P	2070014425	Img WES7P AIMB-203 V5.3.0 x32 10MUI
WES8	2070013814	img WES8 AIMB-203 x64 V6.5.2 10MUI
Software API		SUSI V3.0 SW API for AIMB-203

### I/O View



AIMB-203G2-00A1E