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# Datasheet

## Advantech

**AIMB-205**

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# AIMB-205

**Intel® Core™ i7/i5/i3 LGA 1151 Mini-ITX with VGA/DP/DVI-D/LVDS(eDP), 8 COM, Dual LAN, PCIe x16, M.2, DDR4**



WISE-PaaS/RMM RoHS COMPLIANT CE FC

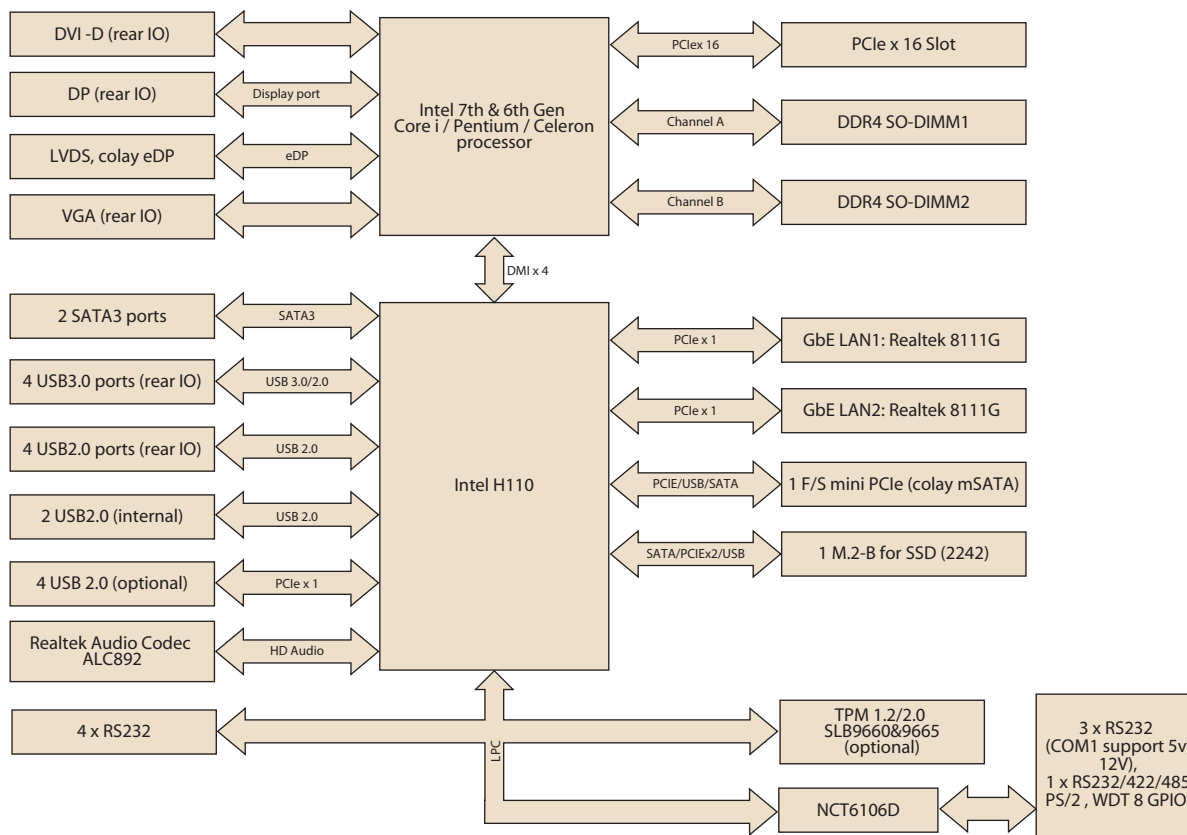
## Features

- Supports Intel® 7th Gen Core™ & 6th Gen Core™ i processor /Pentium / Celeron (LGA1151) with Intel H110 chipset
- Two 260-pin SO-DIMM up to 32GB DDR4 2133 MHz SDRAM
- Supports Dual display configuration by multiple interface: DP/DVI-D/VGA/LVDS(eDP)
- Supports DirectX 12, OpenGL 4.4, OpenCL 2.0 and outstanding 3D graphics performance
- Supports 1 F/S MiniPCIe and 1 M.2 2242 (B key for SSD)

## Specifications

Processor System	CPU	i7-7700/ 7700T	i7-6700/ i7-6700TE	i5-7500/ i5-7500T	i5-6500/ i5-6500TE	i3-7101/ i3-7101TE	i3-6100/ i3-6100TE	Pentium G4400	Pentium G4400TE	Celeron G3900	Celeron G3900TE	
	Core Number	4/4	4/4	4/4	4/4	2/2	2/2	2	2	2	2	
	Max Speed	3.6GHz/ 2.9GHz	3.4GHz/ 2.4GHz	3.4GHz/ 2.7GHz	3.2GHz/ 2.3GHz	3.9GHz/ 3.4GHz	3.7GHz/ 2.7GHz	3.3G	2.4G	2.8G	2.6G	
	L3 Cache	8M/8M	8M/8M	6M/6M	6M/6M	3M/3M	3M/4M	3M	3M	2M	2M	
	TDP	65W/35W	65W/35W	65W/35W	65W/35W	54W/35W	51W/35W	54W	35W	51W	35W	
	Chipset	H110										
	BIOS	AMI EFI 128 Mbit SPI										
Memory	Technology	Dual channel DDR4 2133 MHz SDRAM (Non-ECC)										
	Max. Capacity	Up to 32GB (16GB per SO-DIMM)										
	Socket	2 x 260-pin SO-DIMM										
Graphics	Controller	Integrated Intel® HD Graphics 530										
	VRAM	Shared system memory, 2 GB and above, total system memory shared 1 GB maximum video memory										
	VGA	Max. resolution 1920 x 1200 @ 60 Hz										
	DVI-D	Supports max. resolution 1920 x 1200 @ 60Hz										
	Display Port	Max. resolution 4096 x 2160 @ 60Hz										
	LVDS/eDP	LVDS: Supports dual channel 48-bit up to 1920 x 1200 / eDP:with internal pin header, supports max. resolution 4096 x 2160 @ 60 Hz										
Dual Display	Yes (DP+VGA, DP+LVDS/eDP, DP+DVI-D, DVI-D+VGA, DVI-D+LVDS/eDP, VGA+LVDS/eDP)											
Ethernet	Interface	10/100/1000 Mbps										
	LAN 1 Controller	Realtek RTL8111G GbE LAN										
	LAN 2 Controller	Realtek RTL8111G GbE LAN										
	Connector	2 x RJ-45										
Expansion Slot	M.2	1 M.2 2242 (B key for SSD)										
	Mini PCIe	1 F/S miniPCIe slot support mSATA										
	PCIe x16 (Gen2/3)	1 (16GB/s per direction)										
Storage	SATA 3.0	2 (600MB/s per port)										
	SATA 2.0	N/A										
Rear I/O Connector	VGA	1										
	DisplayPort	1										
	RJ-45	2										
	USB 3.0	4										
	USB 2.0	10 (USB11-14 is BOM optional)										
	Audio	3 (line-in, line-out, mic-in)										
Internal Connector	USB 2.0	2										
	Serial	7 x RS232, 1 x RS232/422/485										
	SATA 3.0	2										
	TPM	(optional SLB9660 TPM 1.2/ SLB9665 TPM 2.0)										
	GPIO	1 (8-bit)										
Watchdog Timer	Output	System reset										
	Interval	Programmable 1-255 sec/min										
Power Requirements	Input Power	ATX										
Environment	Operation Temperature	0 ~ 60° C (32 ~ 140° F)										
	Non-Operation Temperature	-40 ~ 85° C (-40 ~ 185° F)										
Physical Characteristics	Dimensions	170 x 170 mm (6.7" x 6.7")										

### Block Diagram



### Ordering Information

P/N	Chipset	DP	DVI-D	VGA	LVDS	GbE LAN	COM	SATA	USB 3.0/2.0	M.2	Mini PCIe	TPM	AMP	PCIe x 16
AIMB-205G2-00A1E	H110	1	1	1	1	2	8	2	4/6	1 (1 M.2-B 2242)	1 F/S	(1)	1	1

\*() BOM options available on MP version.

### Packing List

Part Number	Description	Quantity
1700003194	SATA HDD cable	1
1700008876	1-to-4 serial ports, 35 cm	2
TBD	I/O port bracket	1
TBD	Startup manual	1

### Optional Accessories

Part Number	Description
1700026162-01	USB 2.0 cable with two ports, 30 cm with bracket
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
1703060191	KB/MS cable 1*6P-2.0/M-DIN 6P(F)*2, 19cm

### Optional Chassis

Part Number	Description
AIMB-B2000-15ZE	Mini-ITX chassis (w/ 150W PSU)

### Rear I/O



### Embedded OS/API

OS/API	Part No.	Description
Win10 IoT Ent	TBD	
WE8.1	TBD	

\*\*KBL-S only support windows 10

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