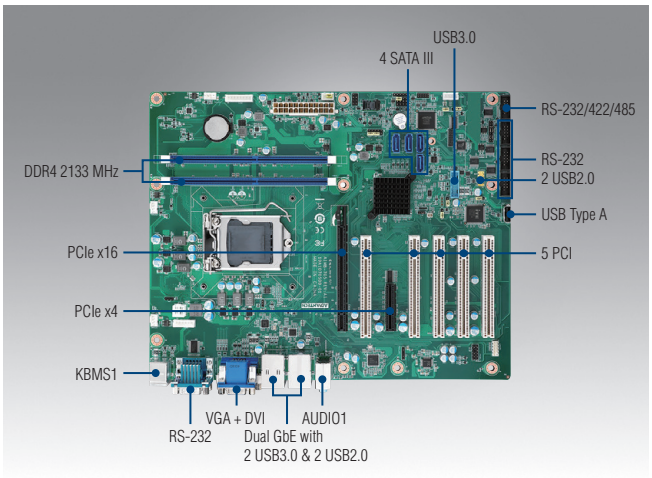
AIMB-705

LGA1151 6th/7th Generation Intel® Core™ i7/i5/i3/Pentium®/Celeron® ATX with DVI/ VGA, DDR4, SATA III, USB 3.0 & 6 COMs



Features

- Intel® 6th/7th generation Core™ i7/i5/i3/Pentium®/Celeron® processor
- Dual channel (Non-ECC) DDR4 1866/2133 up to 32GB
- Supports VGA and DVI display
- Supports SATA3.0, USB3.0, dual GbEs
- Supports 5 RS-232 and 1 RS-232/422/485 serial ports
- 1 PCIe x16 (Gen3) and 1 PCIe x4 (Gen2), and 5 PCI expansion slots

Note: Intel 7th generation processors only support Windows 10 (64-bit).

Quiet

CE FCC

Specifications

Processor System	CPU	i7-7700	i7-7700T	i7-6700	i7-6700TE	i5-7500	i5-7500T	i5-6500	i5-6500TE	i3-7101E	i3-7101TE	i3-6100	i3-6100TE	G4400	G4400TE	G3900	G3900TE
	Speed	3.6GHz	2.9GHz	3.4 GHz	2.4 GHz	3.4GHz	2.7GHz	3.2 GHz	2.3 GHz	3.9GHz	3.4GHz	3.7 GHz	2.7 GHz	3.3 GHz	2.9 GHz	2.8 GHz	2.6 GHz
	Cache	8MB	8MB	8 MB	8 MB	6MB	6MB	6 MB	6 MB	3MB	3MB	4 MB	4 MB	3 MB	3 MB	2 MB	2 MB
	Cores	4	4	4	4	4	4	4	4	2	2	2	2	2	2	2	2
	TDP	65 W	35 W	65 W	35 W	65 W	35 W	65 W	35 W	54 W	35 W	65 W	35 W	65 W	35 W	65 W	35 W
	Socket	LGA 1151															
	Chipset	Intel H110															
	BIOS	AMI 128Mbit SPI Flash															
Expansion Slot	PCI	32-bit/33 MHz, 5 slots															
	PCIe x4 (Gen2)	2 GB/s per direction, 1 slot															
	PCIe x16 (Gen3)	16 GB/s per direction, 1 slot															
Memory	Technology	Dual Channel(Non-ECC) DDR4 1866/2133 MHz															
	Max Capacity	32 GB (16 GB per DIMM)															
	Sockets	DDR4 288-pin DIMM x2															
Graphics	Controller	Chipset integrated Intel HD Graphics															
	VRAM	Shared system memory is subject to OS															
Ethernet	Interface	10/100/1000 Mbps															
	Controller	GbE LAN1: Intel I219-V, GbE LAN2: Intel I211-AT															
	Connector	RJ-45 x2															
SATA	Max Data Transfer Rate	600 MB/s															
	Channel	4															
Rear I/O	VGA	1 (Resolution up to 1920 x 1200 @ 60Hz)															
	DVI	1 for G2 version (Resolution up to 1920 x 1200 @ 60Hz)															
	Ethernet	2 for G2 version; 1 for VG version															
	USB	4 (USB3.0 x2, USB2.0 x2)															
	Audio	Line-out, Mic-in															
	Serial	2															
	PS/2	2 (1 x keyboard and 1 x mouse)															
Internal Connectors	USB	1 (Type A); 2 (USB2.0, Pin-header); 2 (USB3.0, Box-header)															
	Serial	4 for G2 version (3 x RS-232, box-header; 1 x RS-232/422/485 with auto-flow control, box-header)															
	GPIO	8 bits															
Watchdog Timer	Output	System reset															
	Interval	Programmable 1 - 255 sec															
Power Requirement	Test Environment	Intel Core i7-6700 3.4GHz; DDR4 2133 8GB x 2															
	Voltage	3.3V			5V			12V			5Vsb			-5V			-12V
	Current	0.49A			3.13A			7.88A			0.08A			0.07A			0.07A
Environment		Operating									Non-Operating						
	Temperature	0 ~ 60 °C (32 ~ 140 °F), depends on CPU speed and system thermal solution									-40 ~ 85 °C (-40 ~ 185 °F)						
	Humidity	40 °C @ 95% RH Non-condensing									60 °C @ 95% RH Non-condensing						
Physical Characteristics	Dimensions (L x H)	304.8 x 244 mm (12" x 9.6")															

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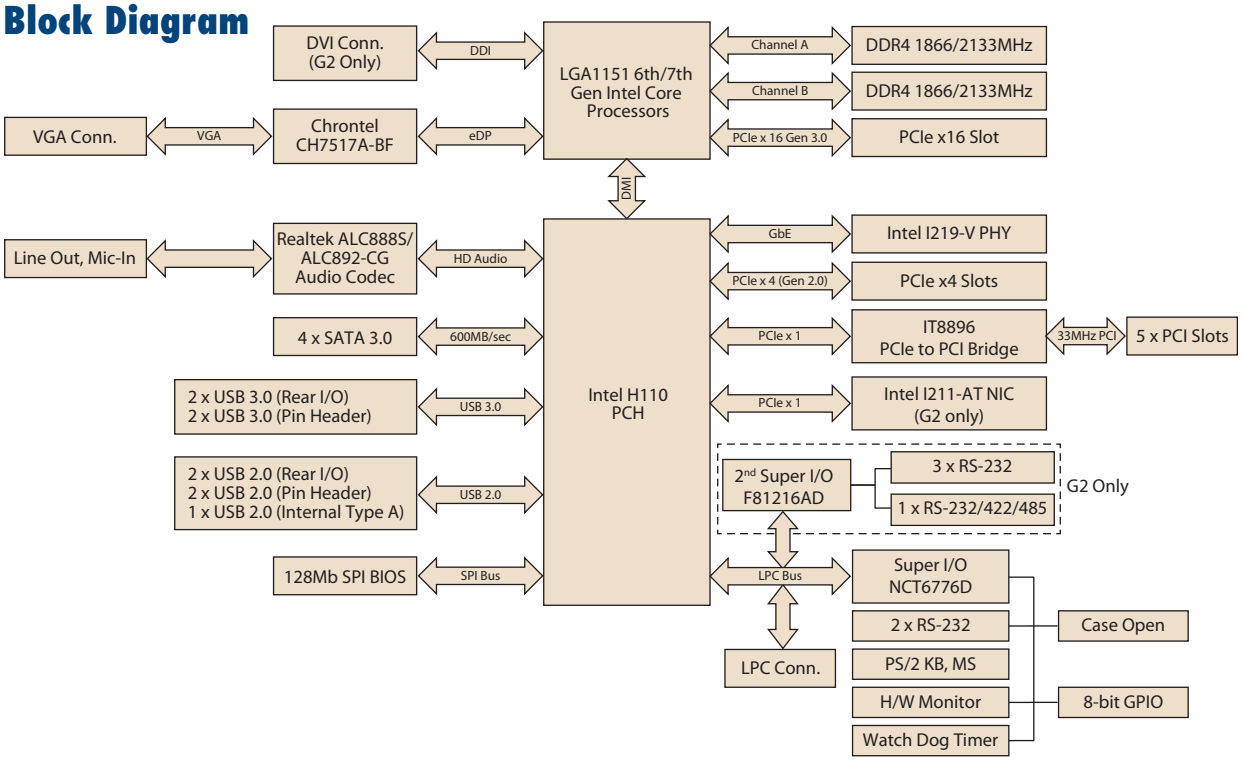
Block Diagram



Ordering Information

Part Number	Chipset	Memory	Display	USB 3.0	USB 2.0	COM	GbE LAN	AMT	SATA	SW RAID	Intelligent System Module Support
AIMB-705G2-00A2	H110	Non-ECC	VGA + DVI	4	5	6	2	No	4	No	No
AIMB-705VG-00A2	H110	Non-ECC	VGA	4	5	2	1	No	4	No	No

Packing List

Part Number	Description	Quantity
1700003194	SATA HDD cable	x2
1700022749-11/ 1700022749-12/ 1700022749-13	SATA power cable	x1
1960050472T000	I/O port bracket	x1
2001070511	Startup manual	x1
2061070501	Driver CD	x1

I/O View

AIMB-705G2-00A2

AIMB-705VG-00A2

Optional Accessories

Part Number	Description
1701090401	Single COM port cable(40 cm)
1701092300	Dual COM port cable(28.5 cm)
1700028292-01	2-port USB 3.0 cable w/ BKT(30 cm)
1700002204	2-port USB 2.0 cable w/ BKT(27 cm)
1960052651N021	CPU cooler for 2U, 4U, and wallmount chassis
1960049408N001	CPU heatsink for 1U chassis
1960055954T000	IO bracket for 1U chassis
PCA-COM232-00A1E	4-port RS-232 LPC module
PCA-TPM-00A1E	TPM module (for BIOS V1.XX)
PCA-TPM-00B1E	TPM2.0 module (for BIOS V2.XX)

Note: Purchasing AIMB-705's proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers are NOT compatible with AIMB-705.

Riser Card

Part Number	Description
AIMB-RP10P-01A1E	1U riser card providing 1 PCI slot
AIMB-RF10F-01A1E	1U riser card providing 1 PCIe x 16 slot
AIMB-RP30P-03A1E	2U riser card providing 3 PCI slots
AIMB-RP3PF-21A1E	2U riser card providing 1 PCIe x 16 and 2 PCI slots