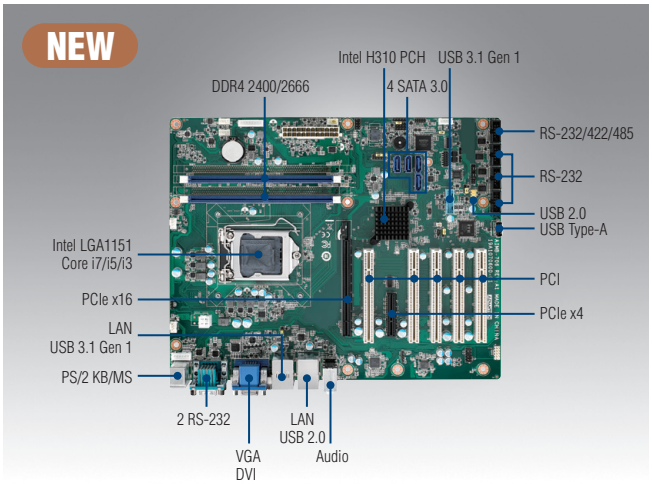
AIMB-706

LGA1151 8th/9th Generation Intel® Core™ i7/i5/i3 & Pentium®/Celeron® ATX with DVI/VGA, DDR4, SATA 3.0, USB 3.1 & 6 COMs



Features

- Intel® 8th/9th generation Core™ i7/i5/i3 & Pentium®/Celeron® processor with H310 chipset
- Dual channel (Non-ECC) DDR4 2400/2666 up to 64 GB
- Support VGA and DVI display
- SATA 3.0, USB 3.1, dual GbEs
- 5 RS-232 and 1 RS-232/422/485 serial ports
- 1 PCIe x16 (Gen 3) and 1 PCIe x4 (Gen 2), and 5 PCI expansion slots

Note: Intel 8th/9th generation processors only support Windows 10 (64-bit).

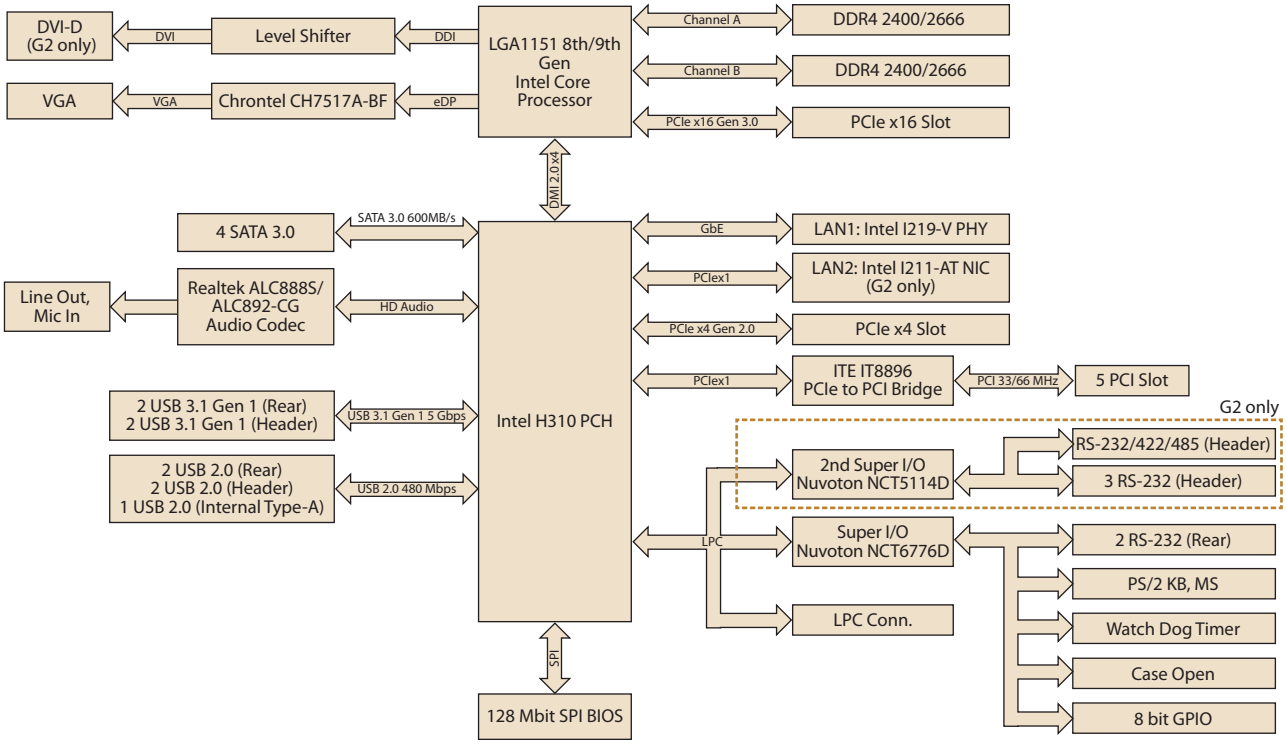
Quiet

Specifications

Processor System	CPU	i7-9700E	i7-9700TE	i7-8700	i7-8700T	i5-9500E	i5-9500TE	i5-8500	i5-8500T	i3-9100E	i3-9100TE	i3-8100	i3-8100T	G5400	G5400T	G4900	G4900T
	Speed	2.6GHz	1.8 GHz	3.2 GHz	2.4 GHz	3.0 GHz	2.2 GHz	3.0 GHz	2.1 GHz	3.1 GHz	2.2 GHz	3.6 GHz	3.1 GHz	3.7 GHz	3.1 GHz	3.1 GHz	2.9 GHz
	L3 Cache	12 MB	12 MB	12 MB	12 MB	9 MB	9 MB	9 MB	9 MB	6 MB	6 MB	6 MB	6 MB	4 MB	4 MB	2 MB	2 MB
	Cores	8	8	6	6	6	6	6	6	4	4	4	4	2	2	2	2
	TDP	65 W	35 W	65 W	35 W	65 W	35 W	65 W	35 W	65 W	35 W	65 W	35 W	58 W	35 W	54 W	35 W
	Socket	LGA1151															
	Chipset	Intel H310															
	BIOS	AMI 128Mbit SPI Flash															
Expansion Slot	PCI	5 (32-bit/33 MHz)															
	PCIe x4 (Gen 2)	1															
	PCIe x16 (Gen 3)	1															
Memory	Technology	Dual Channel(Non-ECC) DDR4 2400/2666															
	Max Capacity	64 GB															
	Sockets	2 x 288-pin DIMM															
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	2 x RJ-45															
SATA	Max Data Transfer Rate	600 MB/s															
	Channel	4															
Rear I/O	VGA	1 (Resolution up to 1920 x 1200 @ 60 Hz)															
	DVI	1 for G2 version (Resolution up to 1920 x 1200 @ 60 Hz)															
	Ethernet	2 for G2 version; 1 for VG version															
	USB	4 (2 x USB 3.1 Gen 1, 2 x USB 2.0)															
	Audio	2 (Line-out, Mic-in)															
	Serial	2 (RS-232)															
	PS/2	2 (1 x keyboard and 1 x mouse)															
Internal Connectors	USB	5 (2 x USB 3.1 Gen 1 via header, 2 x USB 2.0 via header, 1 x USB 2.0 Type-A connector)															
	Serial	4 for G2 version (3 x RS-232, box-header; 1 x RS-232/422/485 with auto-flow control, box-header)															
	SATA	4															
	GPIO	8-bit															
Watchdog Timer	Output	System reset															
	Interval	Programmable 1 - 255 sec															
Power Requirement	Test Environment	Intel Core i7-8700 3.2GHz; DDR4 2400 16 GB x 2															
	Voltage	3.3V		5V		12V		5Vsb		-5V		-12V					
	Current	2.74A		3.5A		5.92A		0.05A		0.01A		0.08A					
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 3.1 Gen 1	USB 2.0	COM	GbE LAN	AMT	SATA	SW RAID	Intelligent System Module Support
AIMB-706G2-00A2	H310	Non-ECC	VGA + DVI	4	5	6	2	No	4	No	No
AIMB-706VG-00A2	H310	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
2001070611	Startup manual	x1

Note: Driver CD is not provided. Please visit Advantech support website for driver download.

I/O View



AIMB-706G2-00A2



AIMB-706VG-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 (CPU TDP ≤65W)
1960047669N001	CPU cooler for 2U/4U and wallmount chassis (CPU TDP 95W)
1960049408N001	CPU heatsink for 1U chassis
1960055954T000	IO bracket for 1U chassis
PCA-COM232-00A1E	4-port RS-232 LPC module
PCA-TPM-00B1E	TPM2.0 module

Note: Purchasing AIMB-706's proprietary CPU cooler from Advantech is a must. Other brands' CPU coolers are NOT compatible with AIMB-706.

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