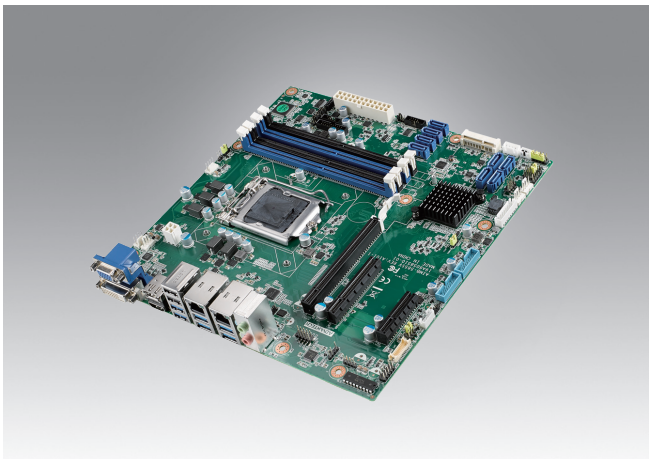
AIMB-585SV

Intel® Xeon® E3/ Core™ i7/i5/i3 LGA1151 MicroATX with DVI-D/HDMI/DP++/eDP/VGA, 2 COM, Dual LAN, 8 SATA III, 10 USB3.0



Windows Embedded Standard 7 | Quiet | WISE-PaaS/RMM | CE FCC | RoHS

Features

- Supports Intel® Xeon®/ 6th & 7th Gen Core™ i7/i5/i3 processor with C236 chipset
- Up to four DIMM sockets support up to 64 GB DDR4 2133 MHz SDRAM
- Supports DVI-D, HDMI, DP++, eDP, VGA display
- Supports Intel AMT 11.0 and Intel vPro competent
- Supports PCIE Gen3, upto 10 x USB 3.0, 8 x SATAIII and dual GbE LAN, mini-PCIe with mSATA
- Supports Software RAID 0, 1, 5, 10, TPM 1.2/2.0 (optional)
- Supports WISE-PaaS and Embedded Software APIs

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

Utilities: BIOS flash, Monitoring

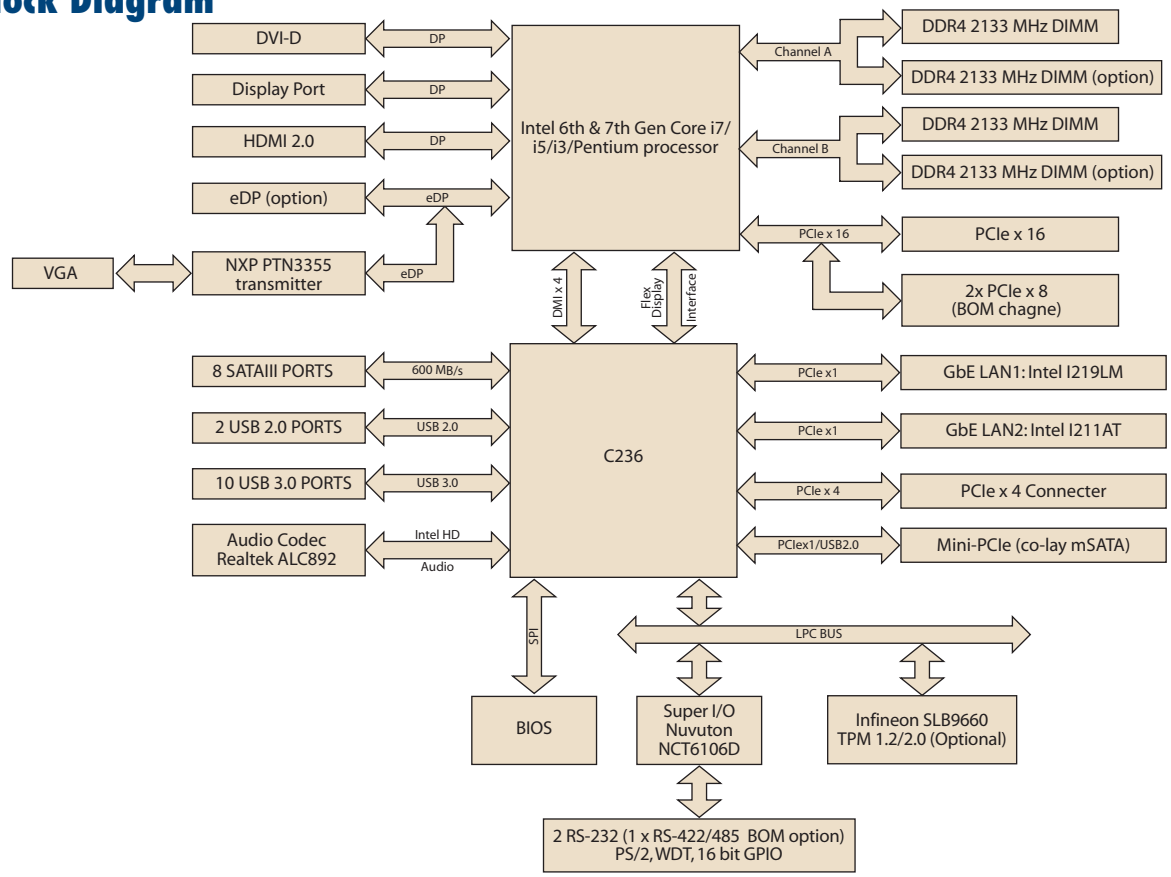
Specifications

Processor System	CPU	E3-1275 v6	E3-1275 v5	E3-1225 v5	E3-1268L v5	I7-7700/ I7-7700T	i7-6700 / i7-6700TE	I5-7500/ I5-7500T	i5-6500 / i5-6500TE	I3-7101/ I3-7101TE	i3-6100/ i3-6100TE	Pentium G4400 / G4400TE	Celeron G3900 / G3900TE
	Core Number	4	4	4	4	4/4	4 / 4	4/4	4 / 4	2/2	2/2	2/2	2/2
	Max. Speed	3.8GHz	3.6GHz	3.3GHz	2.4GHz	3.6GHz/ 2.9GHz	3.4GHz / 2.4GHz	3.4GHz/ 2.7GHz	3.2GHz / 2.3GHz	3.9GHz/ 3.4GHz	3.7 GHz / 2.7GHz	3.3GHz / 2.9GHz	2.8GHz / 2.6GHz
	Integrated Graphics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	L3 Cache	8M	8M	6M	8M	8M/8M	8M / 8M	6M/6M	6M / 6M	3M/3M	4M / 4M	3M / 3M	2M / 2M
	TDP (W)	80W	80W	80W	35W	65W/35W	65W / 35W	65W/35W	65W / 35W	54W/35W	51W / 35W	54W / 35W	47W / 35W
	Chipset	C236											
	BIOS	AMI EFI 128 Mbit SPI											
Expansion Slot	PCIe x4 (Gen3)	4 GB/s per direction, 1 slot											
	PCIe x16 (Gen3)	16 GB/s per direction, 1 slot (BOM change to 2 PCIex8)											
Memory	Technology	Dual Channel DDR4 2133 MHz SDRAM											
	Max. Capacity	64 GB/16 GB per DIMM											
	Socket	2 x 288-pin DIMM (can up to 4 DIMM)											
Graphics	Controller	Intel HD Graphics Supports DirectX11.1, OpenGL 5.0 and OpenCL 2.1											
	VRAM	1 GB maximum shared memory with 2 GB and above system memory installed											
	HDMI	Supports max resolution HDMI 2.0,4096 x 2160 @ 60 Hz											
	VGA	Max resolution 1920 x 1200 @ 60 Hz											
	DVI-D	Supports max. resolution 1920 x 1200 @ 60 Hz											
	eDP	Internal pin header, supports max. resolution 3840 x 2160 @ 60 Hz (on board, option)											
	Display Port	Supports max resolution 4096 x 2304 @ 60 Hz											
	Triple Display	eDP/ VGA + DP++ + HDMI, eDP/ VGA + HDMI + DVI-D, DP++ + eDP/ VGA + DVI-D, DVI-D + DP++ + HDMI											
	Dual Display	DP++ + HDMI, DP++ + DVI-D, DP++ + eDP/ VGA, HDMI + DVI-D, HDMI + eDP/ VGA, eDP, VGA + DVI-D											
Ethernet	Interface	10/100/1000 Mbps											
	Controller	GbE LAN1: Intel I219LM, GbE LAN2: Intel i211											
	Connector	RJ-45 x 2											
SATA	Max Data Transfer Rate	600 MB/s (SATA 3.0)											
	Channel	8											
Rear I/O	DVI-D	1											
	Display Port	1											
	HDMI	1											
	VGA	1											
	Ethernet	2											
	USB	8 (6 x USB 3.0, 2 x USB 2.0)											
	Audio	2 (Mic-in/ Line-out) (Mic-in could be configured as "Line-in" under Win OS.)											
Internal Connector	USB 3.0	4											
	Serial	2 (2 x RS-232, 1 x RS-422/485 BOM change)											
	SATA	8 (SATA 3.0)											
	Extended Display Port (eDP)	0 (option)											
	JTAG	1											
	mini-PCIe	1 Full-size colay mSATA											
	GPIO	16-bit GPIO											
Watchdog Timer	Output	System reset											
	Interval	Programmable 1 ~ 255 sec/min											
Power Requirements		Intel Core i7-6700 3.4 GHz, 16 GB DDR4 2133 MHz x 4pcs											
	Power On	+5 V		3.3 V	12 V		5 Vsb		-12 V				
		1.31A		0.35A	4.52A		0.06A		0A				
Environment		Operating							Normal				
	Temperature	0 ~ 60° C (14 ~ 158° F), depends on CPU speed and cooler solution							-40 ~ 85° C (-40 ~ 185° F)				
Physical Characteristics	Dimensions	244 mm x 244 mm (9.6" x 9.6")											
Power	Input Mode	ATX input (Default)											

美生 研伟科技 15323776600

All product specifications are subject to change without notice.

Block Diagram



Ordering Information

Part Number	Chipset	Memory	USB 3.0	USB 2.0	VGA	DP	HDMI	DVI-D	eDP	SATAIII	PCIe x16/ PCIex8	PCIe x4	COM	TPM	GbE LAN	AMP
AIMB-585WG2-SVA1E	C236	ECC/Non-ECC	10	2	1	1	1	1	(1)	8	1/(2)	1	2	(1)	2	(1)

*() BOM options available on MP version.

Riser Card

Part Number	Description
AIMB-RF10F-01A1E	1U riser card with 1 PCIex16 expansion
AIMB-RF20F-02A1E	2U PCIe x16 to 2 PCIe x8
AIMB-R43PF-21A1E	2U PCIe x16/PCIe x4 to 1PCIe x16 + 2 PCI

Packing List

Part Number	Description	Quantity
1700003194	SATA HDD cable	2
1700022749-13	SATA power cable	2
TBD	I/O port braket	1
2006058510	Startup manual	1

I/O View

Optional Accessories

Part Number	Description
1700020277-01	Dual port USB 3.0 cable 30cm with IO bracket
1960047669N001	LGA1156 CPU cooler for 4U and wallmount chassis, for CPU TDP ≦ 84W, 4.72" (W) x 4.72" (L) x 3.03" (H)
1960047831N001	LGA1156 CPU cooler for 2U and backplane version of chassis, for CPU TDP ≦ 65W, 3.27" (W) x 3.27" (L) x 2.17" (H)
1960053207N001	LGA1155 CPU cooler for 2U and wallmount chassis, for CPU TDP ≦ 45W, D=3.66"(W) x 3.66"(L) x 1.81"(H)
1703060191	KBMS cable 1*6P-2.0/DIN-6P(F)*2, 22 cm
1700025715-01	KBMS cable 1*6P WAFER/PS2*2 w/ BRAKET 35CM
1700026163-01	COM2,1 to 1 COM cable 60cm (IDE 10P-2.0) w/ Braket

Note: Purchasing AIMB-585's proprietary CPU cooler from Advantech is a must, other CPU cooler are NOT compatible with AIMB-585.
The complete thermal solution is composed of CPU cooler and system fans for the CPU TDP as above.

Embedded OS/API

OS/API	Part No.
WES7P	2070014308
WE8.1	2070014247
win10 IoT Ent	2070014621