

AIMB-285

Intel® Core™ i7/i5/i3 LGA 1151 Mini-ITX with DP⁺⁺/HDMI/VGA, 2 COM, Dual LAN, PCIe x4, miniPCIe, DDR4, DC Input

NEW



Features

- Supports Intel® 6th Gen Core™ i processor (LGA1151) with Intel H110 chipset
- Two 260-pin SO-DIMM up to 32GB DDR4 2133 MHz SDRAM
- Supports Dual display of DP/HDMI/VGA
- Supports PCIe x4 (Gen 3), 1 F/S miniPCIe and 1 H/S miniPCIe
- Support 12V DC Input and low profile height
- Supports 4 USB 3.0, 4 USB 2.0, 3 SATAIII, TPM 1.2 / 2.0 (optional)
- Supports SUSIAccess and Embedded Software APIs

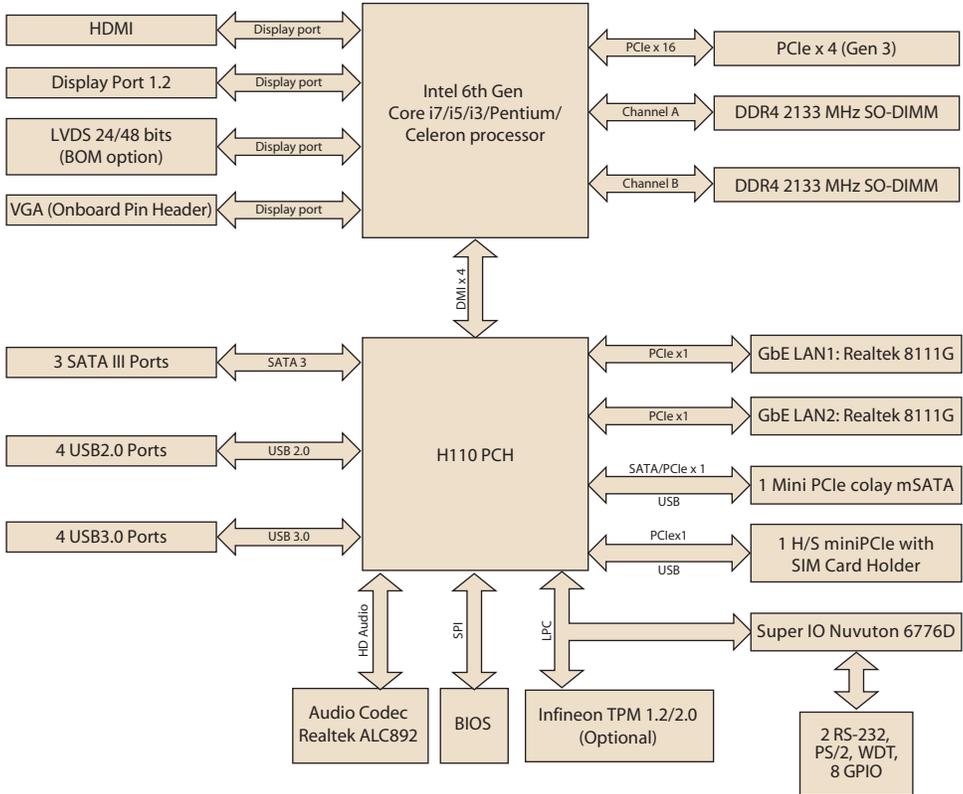
Software APIs:

Utilities:

Specifications

Processor System	CPU	i7-6700	i7-6700TE	i5-6500	i5-6500TE	i3-6100	i3-6100TE	Pentium G4400	Pentium G4400TE	Celeron G3900	Celeron G3900TE	
	Core Number	4	4	4	4	2	2	2	2	2	2	
	Max Speed	4.0G	3.4G	3.6G	3.3G	3.7G	2.7G	3.3G	2.4G	2.8G	2.6G	
	L3 Cache	8M	8M	6M	6M	3M	4M	3M	3M	2M	2M	
	TDP	65W	35W	65W	35W	51W	35W	54W	35W	51W	35W	
	Chipset	H110										
	BIOS	AMI EFI 128 Mbit SPI										
Expansion Slot	Mini-PCIe	1 F/S miniPCIe slot support mSATA; 1 H/S miniPCIe slot with SIM card holder										
	PCIe x4 (Gen3)	4 GB/s per direction, 1 slot										
Memory	Technology	Dual Channel DDR4 2133 MHz SDRAM										
	Max. Capacity	32GB (up to 16GB per SO-DIMM)										
	Socket	2 x 260 PIN DDR4 SO-DIMM (Non-ECC)										
Graphics	Controller	Supports OpenGL 5.x, DirectX12, OpenCL 2.X										
	VRAM	Shared system memory, 2 GB and above, total system memory shared 1 GB maximum video memory										
	VGA	Yes, supports max. resolution 1920 x 1200 @ 60 Hz										
	LVDS	Supports dual channel 48-bit up to 1920 x 1200 (BOM Option)										
	HDMI	Yes, supports max. resolution 4096 x 2160 @ 24 Hz (HDMI 1.4)										
	Display Port 1.2	Yes, supports max. resolution 4096 x 2160 @ 60Hz										
Ethernet	Dual Display	DP+HDMI, DP+VGA, HDMI+VGA, DP+LVDS, HDMI+LVDS, VGA+ LVDS										
	Interface	10/100/1000 Mbps										
	Controller	GbE LAN: Realtek 8111G x2										
SATA	Connector	RJ-45 x 2										
	Max Data Transfer Rate	600 MB/s (SATA 3.0)										
	Channel	3 (SATA III)										
Rear I/O	HDMI	1 (HDMI 1.4)										
	Display Port 1.2	1										
	Ethernet	2										
	USB	4 (USB 3.0)										
	Audio	2 (Mac-in, Line-out) *("Mic-in" could be configured as "Line-in" under Win OS.)										
	DC Jack	1										
Internal Connector	USB	4 (USB 2.0)										
	LVDS/inverter	1 (bom optional)										
	Serial	2 (one support RS-232/422/485 and one support 5V/12V)										
	SATA	3 (SATA III)										
	Mini-PCIe	2 (1 F/S and 1 H/S)										
Watchdog Timer	GPIO	8-bit										
	Output	System reset										
Power Requirements	Interval	Programmable 1 ~ 255 sec/min										
	Input power	12V DC Input										
Environment	Operating	Win Idle 8.52W (Intel core i7-6700 3.4GHz / DDR4 2133MHz 16G x 2)					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 mm x 170 mm (6.69" x 6.69")										

Block Diagram



Ordering Information

P/N	Chipset	DP	VGA	LVDS	HDMI	GbE LAN	COM	SATA	USB 3.0/2.0	MiniPCIe	TPM	AMP	PCIex4
AIMB-285G2-00A1E	H110	1	1 (pin header)	(1)	1 (HDMI 1.4)	2	2	3	4/4	2 (1 F/S & 1 H/S)	(1)	(1)	1
AIMB-285L-00A1E	H110	1	0	(1)	1 (HDMI 1.4)	1	2	3	4/2	1(F/S)	(1)	0	1
AIMB-285G2-LVA1E	H110	1	1 (pin header)	1	1 (HDMI 1.4)	2	2	3	4/4	2 (1 F/S & 1 H/S)	(1)	(1)	1

*() BOM options available on MP version.

Packing List

Part Number	Description	Quantity
1700003194	SATA HDD cable	1
1700018785	SATA power cable	1
1700100250	Serial port cable (1 port, 25cm)	2
19Z0001209T000	I/O port bracket	1
2006028510	Startup manual	1

Optional Chassis

Part Number	Description
AIMB-B2000-00YE	Mini-ITX chassis (Optional external AC-DC 84W/120W Adaptor)
EPC-T2000	Mini-ITX chassis (optional external AC-DC 120W adapter)

Rear I/O



Optional Accessories

Part Number	Description
1700026162-01	USB 2.0 cable with two ports, 30 cm with bracket
1703060191	KB/MS cable 1*6P-2.0/M-DIN 6P(F)*2, 19cm
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 ≤ 35W, 80 (W) x 80 (L) x 32.2 (H) mm
96PSA-A120W12V1	ADP A/D 100-240V 120W 12V C14 DC Plug 180°
1700025084-01	ATX 2*10P to 1*3P-2.0 25cm cable
1700025816-01	VGA cable (M cable 2*5P-2.0/D-SUB 15P(F) 35cm)

Embedded OS/API

OS/API	Part No.	Description
windows 10	2070014483	Win10 IoT Enterprise x64 multi-language
WE8.1	2070014246	WE8.1 Industry Pro x64 multi-language

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