
Datasheet

Advantech

AIMB-285

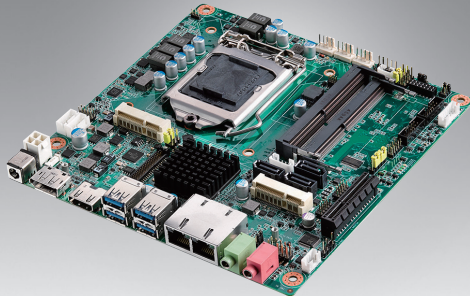
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AIMB-285

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

NEW



WISE-PaaS/RMM

Features

- Supports Intel® 7th & 6th Gen Core™ i processor (LGA1151) with Intel H110 chipset
- Two 260-pin SO-DIMM up to 32GB DDR4 2400/2133 MHz SDRAM
- Supports Dual display of DP/HDMI/VGA
- Supports PCIe x4 (Gen 3), 1 F/S miniPCle and 1 H/S miniPCle
- 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 WISE-PaaS/RMM and Embedded Software APIs

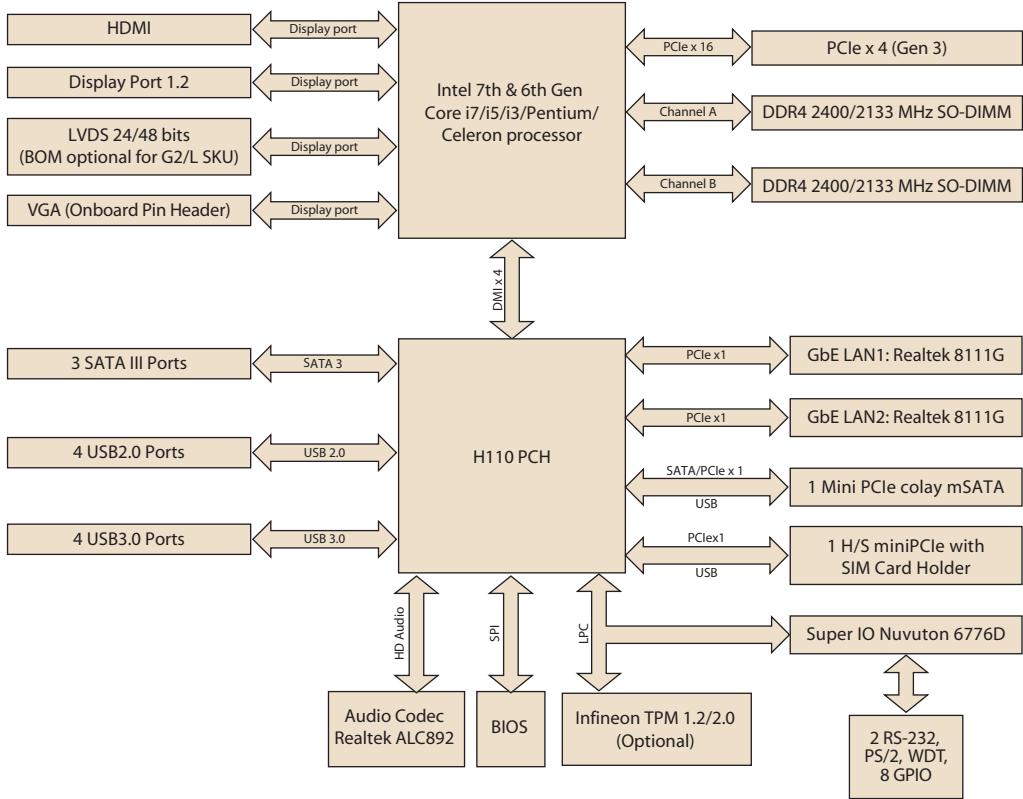
Software APIs:

Utilities:

Specifications

	CPU	KBL-S SKL-S	i7-7700 i7-6700	i7-7700T i7-6700TE	i5-7500 i5-6500	i5-7500T i5-6500TE	i3-7101E i3-6100	i3-7101TE i3-6100TE	- Pentium G4400/4400TE	- Pentium G3900/3900TE	
Processor System	Core Number		4	4	4	4	2	2	2 / 2	2 / 2	
	Max Speed	KBL-S SKL-S	3.6GHz 3.4GHz	2.9GHz 2.4GHz	3.4GHz 3.2GHz	2.7GHz 2.3GHz	3.9GHz 3.7GHz	3.4GHz 2.7GHz	3.3GHz / 2.9GHz	2.8GHz / 2.6GHz	
	L3 Cache		8M	8M	6M	6M	4M	4M	3M / 3M	2M / 2M	
	TDP		65W	35W	65W	35W	54W / 51W	35W	54W / 35W	51W / 35W	
	Chipset		H110								
	BIOS		AMI EFI 128 Mbit SPI								
Expansion Slot	Mini-PCle	1 F/S miniPCle slot support mSATA; 1 H/S miniPCle slot with SIM card holder									
	PCIe x4 (Gen3)	4 GB/s per direction, 1 slot									
Memory	Technology	Dual Channel DDR4 2400/2133 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 optional for G2/L sku)									
	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)									
Rear I/O	Channel	3 (SATA III)									
	HDMI	1 (HDMI 1.4)									
	Display Port 1.2	1									
	Ethernet	2									
Internal Connector	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									
	USB	4 (USB 2.0)									
	LVDS/inverter	1 (BOM optional for G2/L sku)									
Watchdog Timer	Serial	2 (one support RS-232/422/485 and one support 5V/12V)									
	SATA	3 (SATA III)									
	Mini-PCle	2 (1 F/S and 1 H/S)									
	GPIO	8-bit									
Power Requirements	Output	System reset									
	Interval	Programmable 1 ~ 255 sec/min									
Environment	Input power	ATX									
	Operating	Win Idle 9.3W (Intel core i7-7700 3.6GHz / DDR4 2133 MHz 16G x 2)							Non-Operating		
Physical Characteristics	Temperature	0 ~ 60° C (32 ~ 140° F), depends on CPU speed and cooler solution							-40 ~ 85° C (-40 ~ 185° F)		
	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	1	2	4/0	1(F/S)	(1)	0	0
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°
1700023082-11	A cable 2*10P-4.2/1 *3P-2.0 15cm
1700025816-01	VGA cable (M cable 2*5P-2.0/D-SUB 15P(F) 35cm)

Embedded OS/API

OS/API	Part No.	968 P/N	Description
windows 10	2070014483	968QW10LTE	Win10 IoT Enterprise x64 multi-language (SKL-S)
WE8.1	2070014246	968QWE8IP1	WE8.1 Industry Pro x64 multi-language (SKL-S)

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