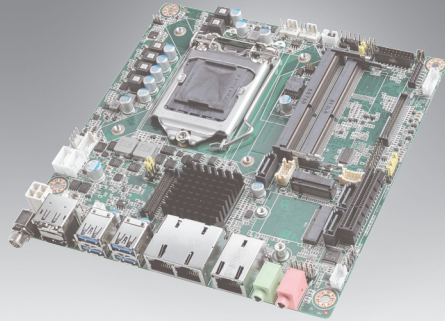


# AIMB-287

Intel® Core™ i7/i5/i3 LGA 1200 Mini-ITX with HDMI/eDP, 4 COM, Dual LAN, M.2, DDR4, DC Input

Preliminary



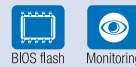
## Features

- Supports Intel® 10th Gen Core™ i processor (LGA1200) with Intel H420E chipset
- Two 260-pin SO-DIMM up to 64GB DDR4 2933 MHz SDRAM
- Supports dual display of HDMI 1.4/ HDMI 2.0/eDP
- Supports 1 M.2 M key & 1 M.2 E key, 6 USB 3.0 & 2 USB 2.0 and 2 SATA III
- Supports 12V~24V
- Supports TPM 2.0
- Supports WISE-PaaS/DeviceOn and Embedded Software APIs

### Software APIs:



### Utilities:

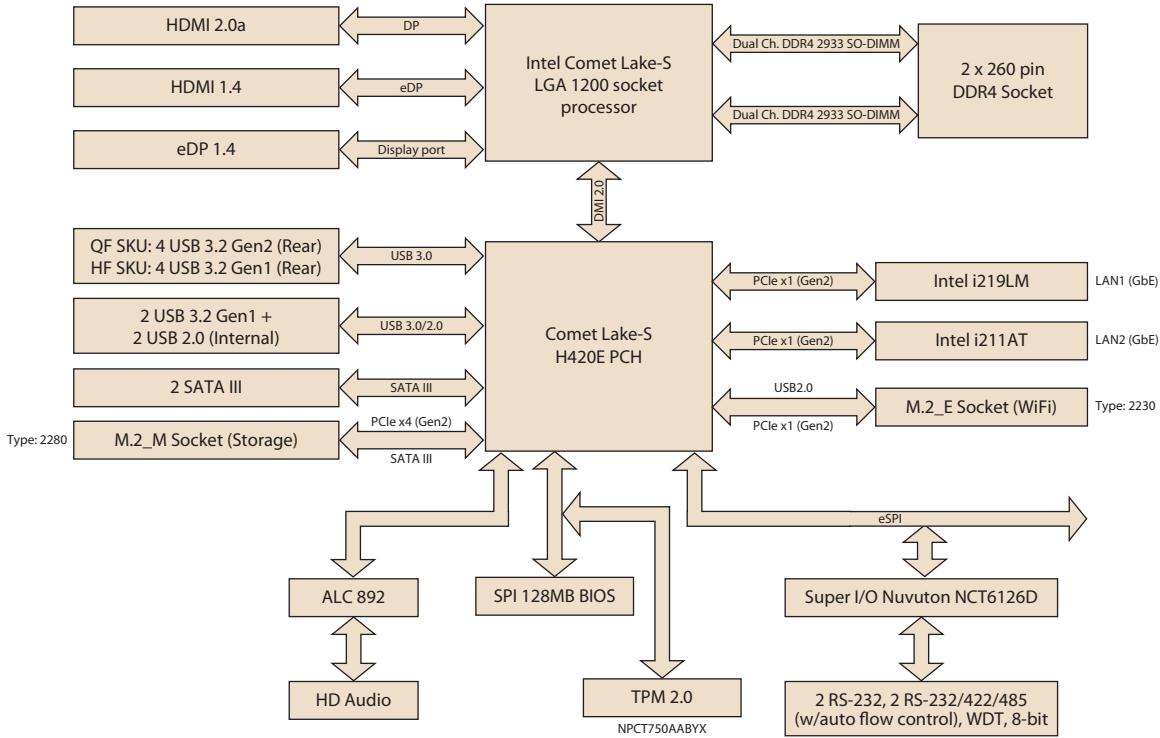


WISE-DeviceOn CE FC RoHS

## Specifications

	CPU	i9-10900E/i9-10900TE	i7-10700E/i7-10700TE	i5-10500E/i5-10500TE	i3-10100E/i3-10100TE	G6400E/G6400TE	G5900E/G5900TE	
Processor System	Core Number	10/10	8/8	6/6	4/4	2/2	2/2	
	Max Speed	2.8GHz/ 1.8GHz	2.9GHz/ 2.0GHz	3.1GHz/ 2.3GHz	3.2GHz/ 2.3GHz	3.8GHz/ 3.2GHz	3.2GHz/ 3.0GHz	
	SmartCache	20MB/20MB	16MB/16MB	12MB/12MB	6MB/6MB	2MB/2MB	2MB/2MB	
	TDP	65W/35W	65W/35W	65W/35W	65W/35W	58W/35W	58W/35W	
	Chipset	H420E						
	BIOS	AMI EFI 256 Mbit SPI						
Expansion Slot	M.2	1 x M key for SSD and 3G/4G (Type: 2280) 1 x E key for wireless (Type: 2230mm)						
	Technology	Dual Channel DDR4 2933 MHz SDRAM						
Memory	Max. Capacity	64GB (up to 32GB per SO-DIMM)						
	Socket	2 x 260 PIN DDR4 SO-DIMM (Non-ECC)						
Graphics	Controller	Intel HD Graphics						
	HDMI 1.4	Yes, supports max. resolution 4096 x 2160 @ 24 Hz						
	eDP	Yes, with internal pin header, supports max. resolution 4096 x 2304 @ 60 Hz						
	HDMI 2.0	Yes, supports max. resolution 4096 x 2160 @ 60 Hz						
Dual Display	Dual HDMI, HDMI 1.4 + eDP, HDMI 2.0 + eDP							
Ethernet	Interface	10/100/1000 Mbps						
	Controller	GbE LAN1: Intel i219LM GbE LAN2: Intel i211AT						
	Connector	RJ-45 x 2						
SATA	Max Data Transfer Rate	600 MB/s (SATA 3.0)						
	Channel	2 (SATA III)						
Rear I/O	HDMI 1.4	1						
	HDMI 2.0	1						
	Ethernet	2						
	USB	4 USB 3.2 (Gen1)						
	Audio	1 (Line in/Line out/Mic in program able)						
	DC Jack	1						
Internal Connector	USB	2 USB3.2 Gen1 / 2 USB2.0						
	LVDS/ inverter	1						
	Serial	4 (2 BOM option RS232/422/485, 2 RS 232)						
	SATA	2 (SATA 3.0)						
	M.2	1 x M key for SSD, Type: 2280mm; 1 x E key for wireless, Type: 2230mm						
	IrDA	-						
Watchdog Timer	GPIO	8-bit						
	Output	System reset						
Power Requirements	Interval	Programmable 1 ~ 255 sec/min						
	Input power	12~24V DC Input						
Environment	Operating					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	HDMI 2.0	eDP	HDMI 1.4	GbE LAN	COM	SATAIII	USB3.0/2.0	M.2 M key	M.2 E key	TPM2.0	AMP
AIMB-287G2-00A1E	H420E	1	1	1	2	4	2	6/4	1	1	(1)	(1)
AIMB-287FL-00A1E	H420E	1	1	1	2	4	2	6/4	1	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 port, 25cm)	1
	1-to-2 serial port cable, 22cm	1
TBD	I/O port bracket	1
1700029538-01	1-to-4 serial port cable, 35cm	1
TBD	Startup manual	1
1700023082-11	ATX 2*10P to 1*3P-2.0 25cm cable	1

### Optional Accessories

Part Number	Description
1700029428-01	M cable USB-A 4P(F)*2/2*4P-2.0 25cm
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 ≤ 45W, 80 (W) x 80 (L) x 32.2 (H) mm
1970004515T000	C.L R3 Sunflower LGA115X KabyLake 35W 90x90x25
96PSA-A120W12V1-3	ADP A/D 100-240V 120W 12V C14 DC Plug 180LX

### Optional Chassis

Part Number	Description
AIMB-B2000-15ZE	Mini-ITX chassis with 150W ATX power supply
AIMB-B2000-00YE	Mini-ITX chassis (Optional external AC-DC upto 120W Adaptor)

### I/O View



### Embedded OS/API

OS/API	Part No.	968 P/N	Description
Windows 10	TBD	968QW19ELE	img W10 19EL AIMB-286 64b 1809 ENU
Windows 10	TBD	968QW19HLE	mg W10 19HL AIMB-286 64b 1809 ENU
Windows 10	TBD	968QW19VLE	img W10 19VL AIMB-286 64b 1809 ENU