
Datasheet

Advantech

AIMB-232

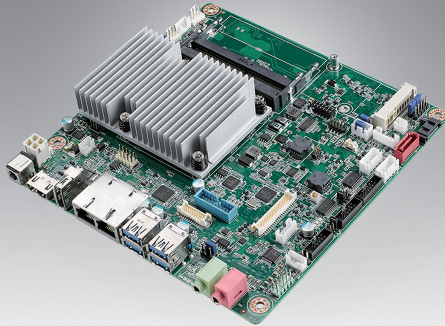
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AIMB-232

Intel® Core™ i7/i5/i3/Celeron BGA 1356 Mini-ITX with DP++/HDMI/LVDS(eDP), 2 COM, Dual LAN, miniPCIe, DDR4, DC Input

NEW



Features

- Supports Intel® Core™ core i7-6600u /core i5-6300u /core i3-6100u/celeron 3955u/Celeron 3965u, 15W TDP, BGA 1356,14nm Processor
- Two 260-pin SO-DIMM up to 32GB DDR4 2133 MHz SDRAM
- Multiple display I/O supports versatile Tri display functions for HDMI, DP, LVDS/eDP
- Support 2 F/S miniPCIe
- Support 12V DC Input and low profile height
- Supports 6 USB 3.0, 2 USB 2.0, TPM 1.2 / 2.0 (optional)

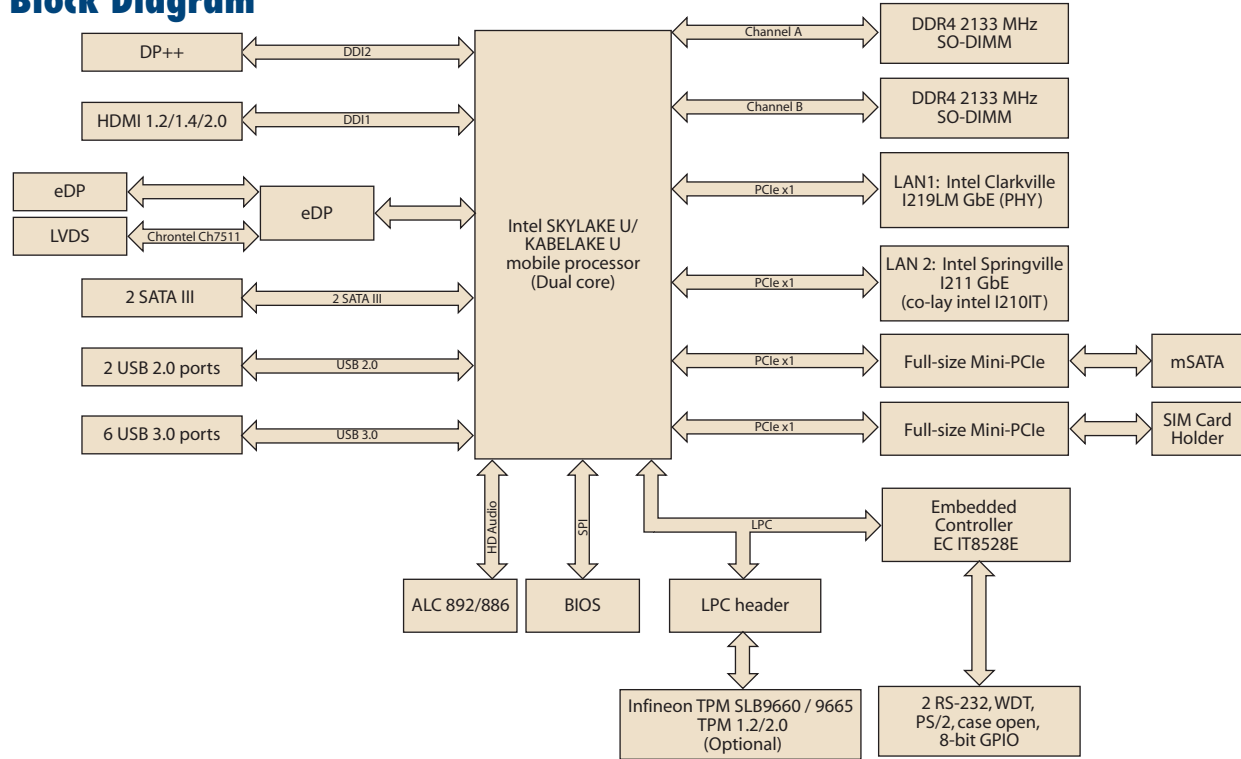
Software APIs:

Utilities:

Specifications

		i7-6600u	i5-6300u	i3-6100u	Celeron 3955u	Celeron 3965u
Processor System	CPU	i7-6600u	i5-6300u	i3-6100u	Celeron 3955u	Celeron 3965u
	Core Number	2	2	2	2	2
	Max Speed	2.6G	2.4G	2.3G	2G	2.2G
	L3 Cache	4M	3M	3M	2M	2M
	TDP	15W	15W	15W	15W	15W
	Chipset	Integrated PCH				
BIOS		AMI uEFI 16 Mbit				
	Expansion Slot	1 F/S miniPCIe slot support mSATA (celeron sku can't support); 1 F/S miniPCIe slot with SIM card holder				
Memory	Technology	Dual Channel DDR4 2133 MHz SDRAM				
	Max. Capacity	16GB/8GB per SO-DIMM				
	Socket	2 x 260 PIN DDR4 SO-DIMM (Non-ECC)				
Graphics	Controller	Support DirectX 11.2, OpenGL 5.0, OpenCL 2.1				
	LVDS	Supports dual channel 48-bit up to 1920 x 1200				
	HDMI	Yes, supports max. resolution 4096 x 2160 @ 60 Hz				
	DP++	Yes, supports max. resolution 4096 x 2304 @ 60 Hz				
	Dual Display	DP + HDMI, DP + LVDS (or eDP), HDMI + LVDS (or eDP)				
Ethernet	Interface	10/100/1000 Mbps				
	Controller	LAN1: Intel Clarkville I219LM GbE PHY LAN2: Intel Springville I211 GbE (co-lay intel I210IT)				
SATA	Connector	RJ-45 x 2				
	Max Data Transfer Rate	600 MB/s (SATA 3.0)				
Rear I/O	Channel	2 (SATA III)				
	HDMI	1 (HDMI 1.2/1.4/2.0)				
	DP++	1				
	Ethernet	2				
	USB	CORE i: 4 (USB3.0), CELERON: 2 (USB2.0), 2 (USB3.0)				
	Audio	2 (Mic-in, Line-out)				
Internal Connector	DC Jack	1, DC 12V Jack				
	USB	2 (USB 2.0), 2 (USB 3.0)				
	LVDS/inverter	1				
	eDP	1, by BOM optional				
	Serial	2 (support RS-232 and supports 5V/12V by jumper selecting)				
	IDE	-				
	SATA	2 (SATA III)				
	SATA Power	2				
	PS/2 K/B & M/S	1				
	Mini-PCIe	2 (F/S)				
	IrDA	-				
	CPU/System/Chassis Fan Connector	1 CPU fan with 4pin header 2 System fan with 4pin header				
	Power Connector	4pin ATX, DC 12V				
GPIO	8-bit					
Watchdog Timer	Output	System reset				
	Interval	Programmable 1 ~ 255 sec/min				
Power Requirements	Input power	12V DC Input				
	Power Consumption (Max, test in HCT)	TBD				
Environment	Operating	0 ~ 60° C (32 ~ 140° F) with 0.7m/s air flow, depends on CPU speed and cooler solution			Non-Operating	
	Temperature				-20 ~ 70° C (-4 ~ 158° F) with 0.7m/s air flow	
Physical Characteristics	Dimensions	170 mm x 170 mm (6.69" x 6.69")				

Block Diagram



Ordering Information

Order Number	CPU	Display	GbE	TPM	Storage	USB	PCIe / PCI	Operating Temp.
AIMB-232G2-U7A1E	i7-6600u					6 x USB 3.0, 2 x USB 2.0		0 ~ 60° C
AIMB-232G2-U5A1E	i5-6300u	HDMI, DP++, LVDS/eDP (optional)	2	(1)	2 x SATA III 1 x mSATA (celeron sku didn't support mSATA)	6 x USB 3.0, 2 x USB 2.0		0 ~ 60° C
AIMB-232G2-U3A1E	i3-6100u					6 x USB 3.0, 2 x USB 2.0	2 x Full-size Mini-PCIe	0 ~ 60° C
AIMB-232G2-U0A1E	Celeron 3955u					4 x USB 3.0, 4 x USB 2.0		0 ~ 60° C
AIMB-232G2-U0B1E	Celeron 3965u					4 x USB 3.0, 4 x USB 2.0		0 ~ 60° C

Packing List

Part Number	Description	Quantity
1700003194	SATA HDD cable	2
1700018785	SATA Power cable	2
1700100250	1-to-1 serial port cable kit, 25 cm/2	2
2006B23200	Startup manual	1
1960062823N011	Fanless Heat Sink	1
1960079697T000	IO port bracket	1

Optional Accessories

Part Number	Description
96PSA-A84W12V1	ADAPTER 100-240V 84W 12V 7A
96PSA-A60W12V1-1	ADAPTER 100-240V 60W 12V 5A
1702002600	Power cable 3-pin 180 cm, USA type
1702002605	Power cable 3-pin 180 cm, Europe type
1702031801	Power cable 3-pin 180 cm, UK type
1700000237	Power cable 3-pin PSE Mark 183 cm
1960061914N021	Fan Cooler

Rear I/O



AIMB-232G2-U7A1E
 AIMB-232G2-U5A1E
 AIMB-232G2-U3A1E
 AIMB-232G2-U0A1E
 AIMB-232G2-U0B1E

Embedded OS/API

OS/API	Part No.	Description
WES7	TBD	
WES8	TBD	

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