

Datasheet

AIMB-242

Advantech

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AIMB-242

Intel® Xeon, Core™ i7/i5/i3 Mini-ITX with Dual DP++/HDMI/LVDS(eDP), 2 COM, Dual LAN, PCIe x16, M.2, DDR4

NEW



Features

- Supports Intel® Xeon, 6th Gen Core™ i mobile processor (BGA) with Intel QM170/CM236 chipset
- Two 260-pin SO-DIMM up to 16GB DDR4 2133 MHz SDRAM
- Supports triple display of Dual DP++/HDMI/LVDS(eDP)
- Supports PCIe x16 (Gen 3), 2 MiniPCIe, M.2, 8 USB3.0 & 1 USB2.0, 2 SATAIII
- Supports Intel vPro, AMT 11.0, TPM 1.2 / 2.0 (optional)
- Supports SUSIAccess and Embedded Software APIs

Software APIs:

- H/W Monitor
- Watchdog
- GPIO
- Brightness

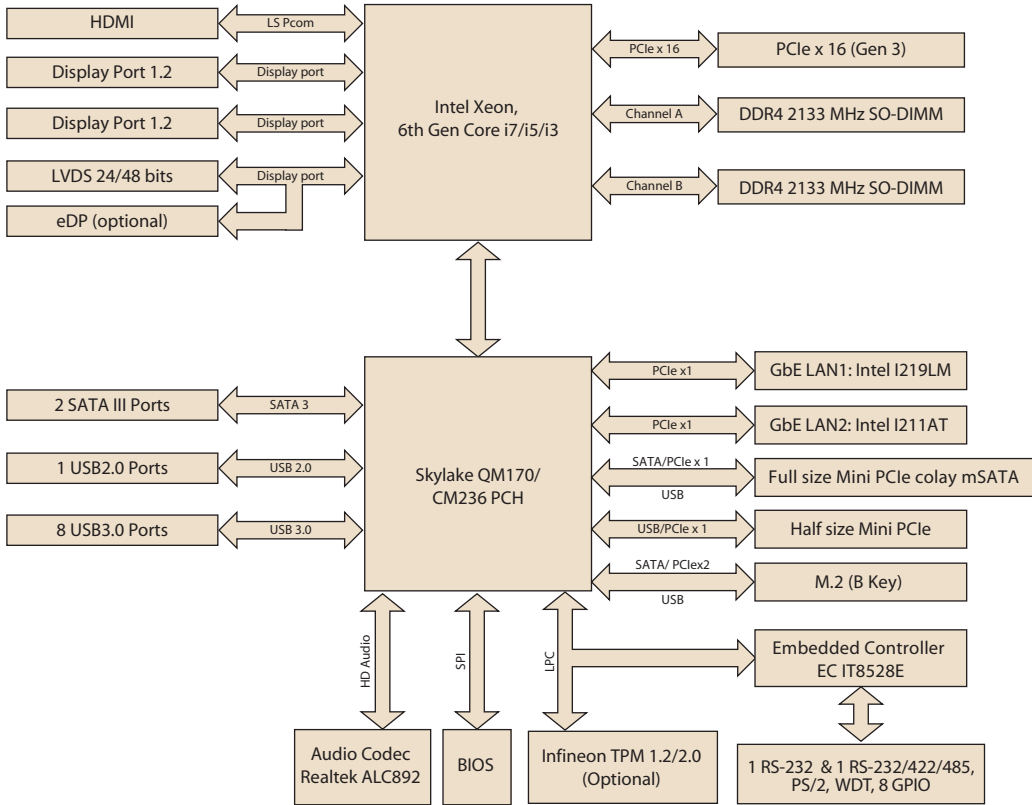
Utilities:

- BIOS flash
- Monitoring

Specifications

Processor System	CPU	TBD
	Core Number	TBD
	Max Speed	TBD
	L3 Cache	TBD
	TDP	TBD
	Chipset	QM170/CM236
	BIOS	AMI EFI 128 Mbit SPI
Expansion Slot	M.2	1, B key for SSD and 3G supported (Type: 2242, 2280mm)
	Mini-PCIe	2
	PCIe x16 (Gen3)	16 GB/s per direction, 1 slot
Memory	Technology	Dual Channel DDR4 2133 MHz SDRAM
	Max. Capacity	16 GB/8 GB per SO-DIMM
	Socket	2 x 260 PIN DDR4 SO-DIMM
Graphics	Controller	Supports OpenGL 5.x, DirectX11, OpenCL 2.X
	VRAM	Shared system memory, 2 GB and above, total system memory shared 1 GB maximum video memory
	LVDS	Supports dual channel 48-bit up to 1920 x 1200
	HDMI	Yes, supports max. resolution 4096 x 2160 @ 60 Hz (HDMI 2.0)
	eDP	Yes, with internal pin header, supports max. resolution 4096 x 2304 @ 60 Hz
	Display Port 1.2	Yes, supports max. resolution 4096 x 2304 @ 60 Hz
Ethernet	Triple Display	DP+DP+LVDS(or eDP), DP+DP+HDMI, DP+HDMI+LVDS(or eDP)
	Interface	10/100/1000 Mbps
	Controller	GbE LAN1: Intel i219LM; LAN2: Intel I211AT
SATA	Connector	RJ-45 x 2
	Max Data Transfer Rate	600 MB/s (SATA 3.0)
Rear I/O	Channel	2
	HDMI	1 (HDMI 2.0)
	Display Port 1.2	2
	Ethernet	2
	USB	8 (USB3.0)
	Audio	3 (Mic-in, Line-out, Line-in)
	Serial	1 (RS-232, supports 5V/12V)
Internal Connector	USB	1 (USB2.0)
	LVDS/inverter	1
	Serial	1 (RS-232/422/485)
	IDE	-
	SATA	2 (SATA 3.0)
	Mini-PCIe	2 (F/S x 1 with mSATA support & H/S x 1)
	M.2	1 (B Key for SSD and 3G supported)
Watchdog Timer	IrDA	-
	GPIO	8-bit
Power Requirements	Output	System reset
	Interval	Programmable 1 ~ 255 sec/min
Environment	Typical Power Consumption	TBD
	Temperature	Operating 0 ~ 60° C (32 ~ 140° F), with 0.7m/s air flow, depends on CPU speed and cooler solution Non-Operating -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	LVDS/eDP	HDMI 2.0	GbE LAN	COM	M.2	SATA	USB 3.0/2.0	MiniPCle	TPM	AMP	PClex16
TBD	QM170	2	1 / (1)	1	2	2	1	2	8/1	2 (1 x F/S; 1 x H/S)	(1)	(1)	1
TBD	CM236	2	1 / (1)	1	2	2	1	2	8/1	2 (1 x F/S; 1 x H/S)	(1)	(1)	1

*() BOM options available on MP version.

Packing List

Part Number	Description	Quantity
1700003194	SATA HDD cable	2
TBD	Serial port cable	1
TBD	I/O port bracket	1
TBD	Startup manual	1

Optional Accessories

Part Number	Description
TBD	USB 2.0 cable with one port
1703060191	KB/MS cable 1*6P-2.0/M-DIN 6P(F)*2, 19cm
TBD	CPU cooler

Optional Chassis

Part Number	Description
AIMB-B2000-15ZE	Mini-ITX chassis with 150W ATX power supply

Embedded OS/API

OS/API	Part No.	Description
WES7	TBD	
WES8	TBD	

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