

# AIMB-274

Intel® Core™ i7/i5/i3 LGA 1150 Mini-ITX  
with VGA/DP<sup>++</sup>/HDMI(DP<sup>++</sup>)/LVDS(eDP),  
2 COM, Dual LAN, PCIe x16

NEW



## Features

- Supports Intel® 4th Gen Core™ i processor (LGA1150) with Intel Q87 chipset
- Two 204-pin SO-DIMM up to 16 GB DDR3/DDR3L 1333/1600 MHz SDRAM
- Supports triple display of VGA/DP/HDMI(DP<sup>++</sup>)/LVDS(eDP)
- Supports PCIe x16 (Gen 3) and two mini PCIe
- Supports Intel vPro, AMT 9.0, PECI 3.0, Software RAID 0,1,5,10, TPM 1.2 (optional)
- Supports iManager, SUSIAccess and Embedded Software APIs

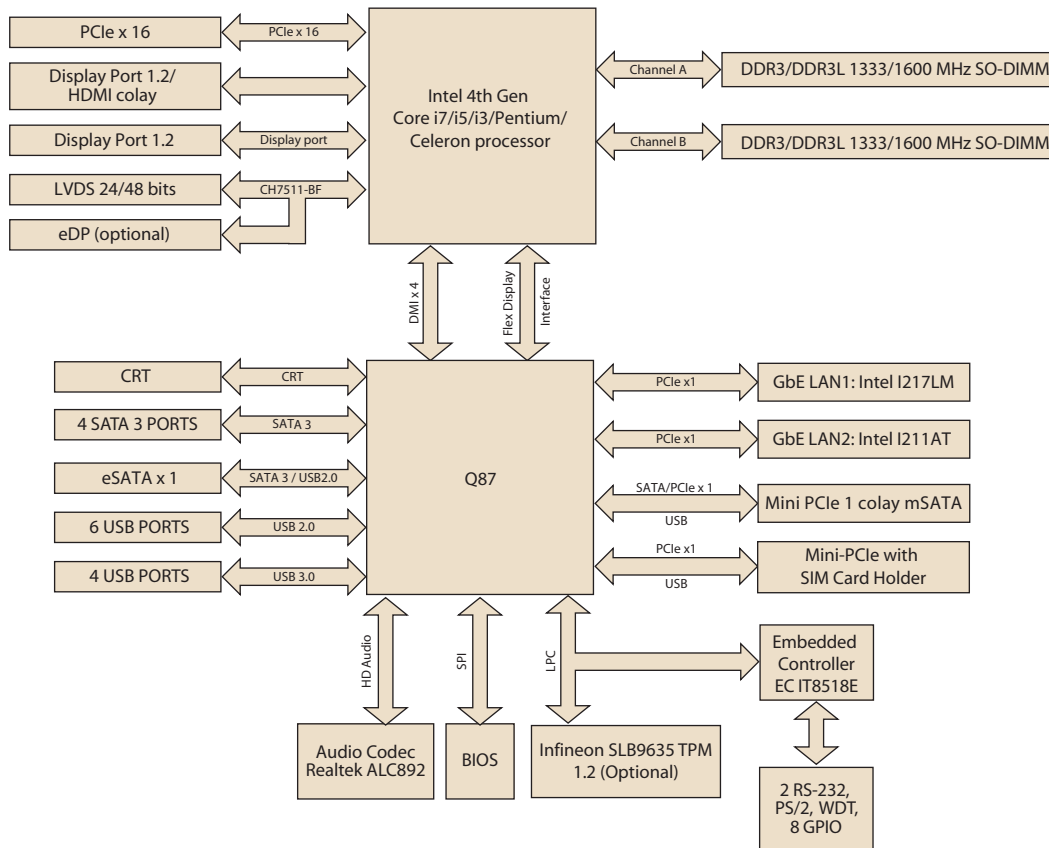
Software APIs:

Utilities:

## Specifications

Processor System	CPU	E3-1268L V3	i7-4770S	i7-4770TE	i5-4570S	i5-4570TE	i3-4330	i3-4330TE	Pentium G3420	Pentium G3320TE
	Core Number	4	4	4	4	2	2	2	2	2
	Max Speed	2.3GHz	3.1 GHz	2.3 GHz	2.9 GHz	2.7 GHz	3.5 GHz	2.4 GHz	3.2 GHz	2.3 GHz
	L3 Cache	8M	8M	8M	6M	4M	4M	4M	3M	3M
	TDP (W)	45W	65W	45W	65W	35W	54W	35W	54W	35W
	Chipset	Q87								
BIOS	AMI EFI 128 Mbit SPI									
Expansion Slot	PCI	-								
	Mini-PCIe	2, F/S x 1 support mSATA, H/S x 1 with SIM card holder								
Memory	PCIe x16 (Gen3)	16 GB/s per direction, 1 slot								
	Technology	Dual Channel DDR3/DDR3L @ 1.5V 1333/1600 MHz SDRAM								
	Max. Capacity	16 GB/8 GB per SO-DIMM								
	Socket	2 x 204 PIN DDR3 SO-DIMM (Non-ECC)								
Graphics	Controller	Supports DirectX11.1, OpenGL 4.0 and OpenCL 1.2								
	VRAM	Shared system memory, 2 GB and above, total system memory shared 1 GB maximum video memory								
	CRT	Yes, supports max. resolution 1920 x 1200 @ 60 Hz								
	LVDS	Supports dual channel 48-bit up to 1920 x 1200								
	HDMI	Yes, supports max. resolution 1920 x 1200								
	eDP	Yes, with internal pin header, supports max. resolution 3840 x 2160 @ 60 Hz								
	Display Port 1.2	Yes, supports max. resolution 3840 x 2160 @ 60 Hz								
Triple Display	VGA+LVDS+HDMI, VGA+LVDS+DP, VGA+DP+HDMI; VGA+DP+DP; VGA+eDP+HDMI, VGA+eDP+DP, LVDS+DP+HDMI, LVDS+DP+DP, eDP+DP+HDMI, eDP+DP+DP									
Ethernet	Interface	10/100/1000 Mbps								
	Controller	GbE LAN1: Intel I217LM; LAN2: Intel I211AT								
	Connector	RJ-45 x 2								
SATA	Max Data Transfer Rate	600 MB/s (SATA 3.0)								
	Channel	4								
Rear I/O	CRT	1								
	HDMI (DP <sup>++</sup> )	1, shared with DP by auto detection								
	Display Port 1.2	1								
	Ethernet	2								
	USB	4 (USB 3.0)								
	Audio	3 (Mic-in, Line-out, Line-in)								
	Serial	1 (RS-232, supports 5V/12V)								
	eSATA	1								
Internal Connector	USB	6 (USB 2.0)								
	LVDS/inverter	1								
	Serial	1 (RS-232/422/485)								
	IDE	-								
	SATA	4 (SATA 3.0)								
	Mini-PCIe	2 (F/S x 1 & H/S x 1)								
	Parallel	-								
	IrDA	-								
Watchdog Timer	GPIO	8-bit								
	Output Interval	System reset Programmable 1 ~ 255 sec/min								
Power Requirements	Input power	ATX								
	Operating	Win Idle 18.725 W (Intel Core i7-4770S 3.1GHz / DDR3 1600MHz 8GB x 2)						Non-Operating		
Environment	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	CRT	LVDS/ eDP	HDMI/ DP	GbE LAN	COM	eSATA	SATA	USB 3.0/2.0	MiniPCIe	TPM	AMP	PClex16
AIMB-274G2-00A1E	Q87	1	1	1 (1)	1 (CEC)	2	2	1	4	4/6	2 (1 x F/S; 1 x H/S)	(1)	(1)	1
AIMB-274L-00A1E	Q87	0	1	0	1	1	2	0	2	4/6	1 (F/S)	0	0	1

\*( ) BOM options available on MP version.

## Packing List

Part Number	Description	Quantity
1700003194	SATA HDD cable	2 for G2 sku, 0 for L sku
1700018785	SATA power cable	2
1700001788	Serial port cable, 30cm	1
1960060539T000	I/O port bracket	1 for G2 sku
1960060539T100	I/O port bracket	1 for L sku
2006027410	Startup manual	1
2066027400	Driver CD	1

## Optional Accessories

Part Number	Description
1703100121	USB cable with two ports, 12 cm
1703100261	USB cable with two ports, 26 cm
1703100350	USB cable with two ports, 34.5 cm
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 ≤ 45W, 80 (W) x 80 (L) x 32.2 (H) mm

Note: Purchasing AIMB-274's proprietary CPU cooler from Advantech is a must, other brand's CPU cooler are NOT compatible with AIMB-274.

## Optional Chassis

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

## I/O View



AIMB-274G2-00A1E



AIMB-274L-00A1E

## Embedded OS/API

OS/API	Part No.	Description
WES7	2070012179	WES7E AIMB-274 x86 V5.1.6 Eng/Jpn/Cht/Chn
WES8	2070012425	WES8E AIMB-274 x86 V6.0.0 Eng
iManager		Software APIs for hardware monitoring ,smart fan, watchdog, GPIO, brightness control