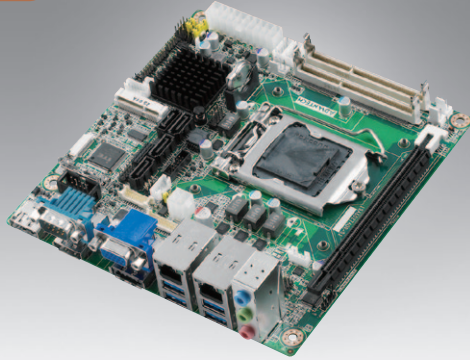


AIMB-274

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

NEW

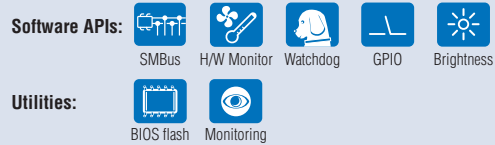


Specifications

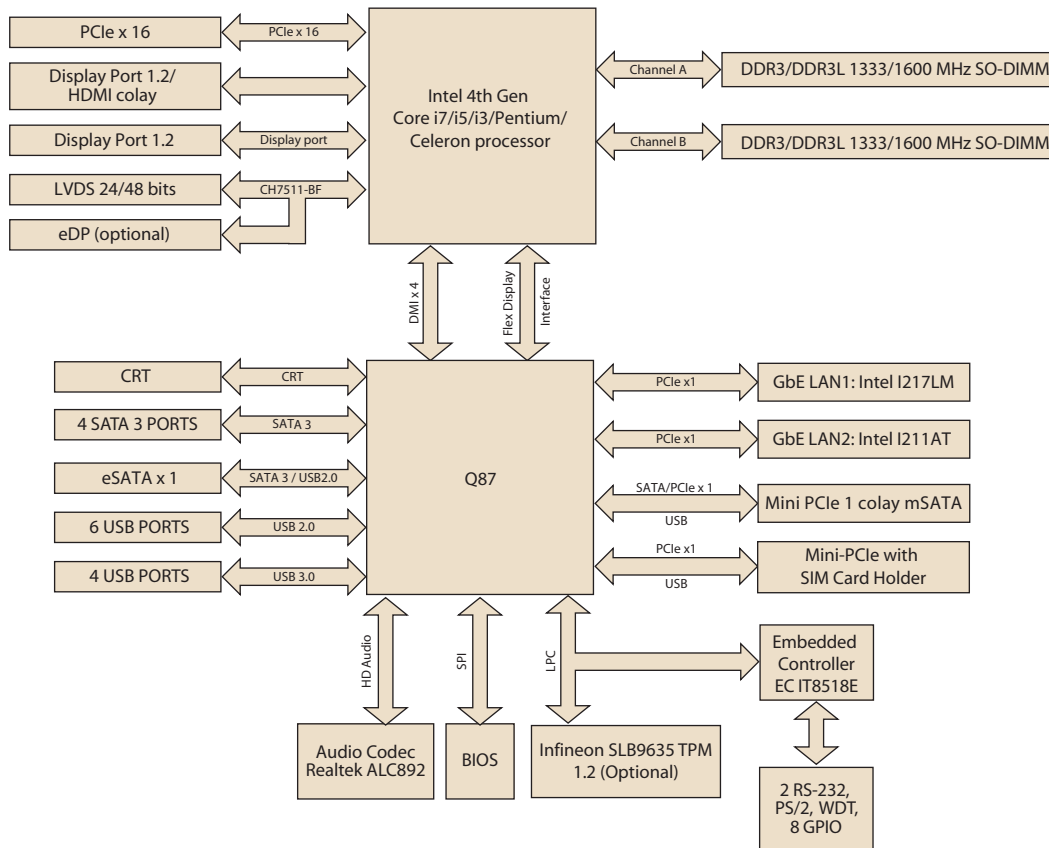
| | CPU | i7-4790S | i7-4770S | i7-4770TE | i5-4590S/ 4590T | i5-4570S | i5-4570TE | i3-4360/ 4350T/ 4340TE | i3-4330 | i3-4330TE | Pentium G3420 | Pentium G3320TE | |
|--------------------|--|--|----------|-----------|--------------------|----------|-----------|------------------------------|---------|----------------------------|------------------|--------------------|--|
| Processor System | Core Number | 4 | 4 | 4 | 4/4 | 4 | 2 | 2/2/2 | 2 | 2 | 2 | 2 | |
| | Max Speed | 3.2GHz | 3.1 GHz | 2.3 GHz | 3.0/2.0 GHz | 2.9 GHz | 2.7 GHz | 3.7/3.1/2.6 GHz | 3.5 GHz | 2.4 GHz | 3.2 GHz | 2.3 GHz | |
| | L3 Cache | 8M | 8M | 8M | 6M/6M | 6M | 4M | 4M/4M/4M | 4M | 4M | 3M | 3M | |
| | TDP (W) | 65W | 65W | 45W | 65W/35W | 65W | 35W | 54W/35W/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 | | | | | | | | | | | |
| | PCIe x16 (Gen3) | 16 GB/s per direction, 1 slot | | | | | | | | | | | |
| Memory | 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+) | 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 | - | | | | | | | | | | | |
| Watchdog Timer | Output | System reset | | | | | | | | | | | |
| | Interval | Programmable 1 ~ 255 sec/min | | | | | | | | | | | |
| | Input power | ATX | | | | | | | | | | | |
| Power Requirements | Win Idle | 18.725 W (Intel Core i7-4770S 3.1GHz / DDR3 1600MHz 8GB x 2) | | | | | | | | | | | |
| | Operating | Non-Operating | | | | | | | | | | | |
| Environment | 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") | | | | | | | | | | | |

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)/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



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 Chassis

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

I/O View



AIMB-274G2-00A1E



AIMB-274L-00A1E

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.

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 |



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