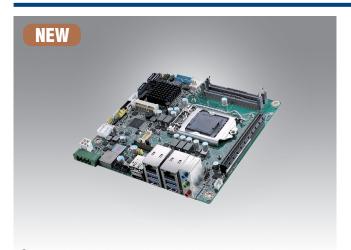
AIMB-275A2

Intel® Core™ i7/i5/i3 LGA 1151 Mini-ITX with DP**/HDMI/LVDS(eDP), 2 COM, Dual LAN, PCIe x16, M.2, DDR4, DC Input



Features

- Supports Intel® 7th & 6th Gen Core™ i processor (LGA1151) with Intel Q170/ H110 chipset
- Two 260-pin SO-DIMM up to 32GB DDR4 2133 MHz SDRAM
 Supports triple display of DP/HDMI/LVDS(eDP)
- Supports PCle x16 (Gen 3), 1 F/S miniPCle 1 M.2 (NGFF), 6 USB 3.0 and 3
- Support wide range 12V~24V DC Input
- Supports Intel vPro, AMT 11.0, PECI 3.0, Software RAID 0,1,5,10, TPM 1.2 /
- Supports WISE-PaaS/RMM and Embedded Software APIs

Software APIs:









Utilities:





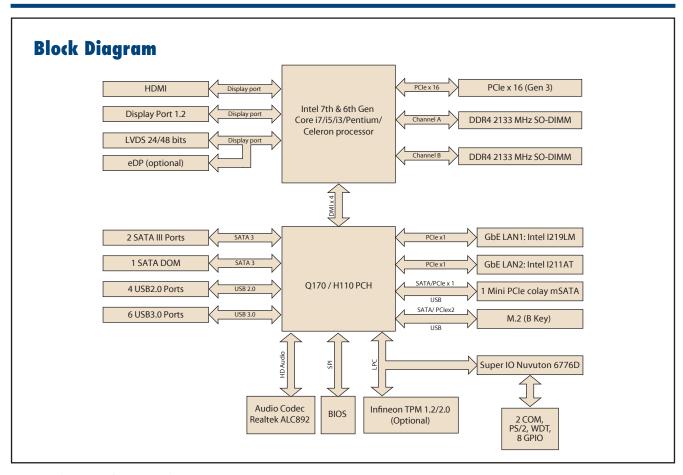


WISE-PaaS/DeviceOn RoHS C F FC



Specifications

| Core Number 4 | | CPU | KBL-S SKL-S | i7-7700 i7-6700 | i7-7700T i7-6700TE | i5-7500 i5-6500 | i5-7500T i5-6500TE | i3-7101E i3-6100 | i3-7101TE i3-6100TE | - Pentium | - Pentium | | | |
|--|--------------------------|----------------|----------------|---------------------|-----------------------|--------------------|-----------------------|---------------------|------------------------|--------------|--------------|--|--|--|
| Max Spead Sell S 66 Hz 2 26 Hz 3 26 Hz 2 36 Hz 3 36 Hz 2 36 Hz 3 3 3 3 3 3 3 3 3 | | | | | | | | | | | | | | |
| Max | | Core Number | | | | | | | | 2/2 | 2/2 | | | |
| Pub Pub | Processor System | | SKL-S | 3.4GHz | 2.4GHz | 3.2GHz | 2.3GHz | 3.7GHz | 2.7GHz | · | | | | |
| Principation Prin | | | | | | | | | | | | | | |
| BIOS | | | | | 35W | 65W | 35W | 54W / 51W | 35W | 54W / 35W | 51W / 35W | | | |
| Expansion Slot | | | | | CDI | | | | | | | | | |
| Expension Slot Min-PCIa (Sings) 1. F.S min/PCia sol (with mSATA supported) PCIe y15 (Gings) 1 Seb per direction 1.3 legs Memory Technology 21332400 MHz SDRAM Max Capacity 2 x200 PM DORA SD-DIMM (Mon-ECC) Controller 2 x200 PM DORA SD-DIMM (Mon-ECC) WRAM Shared system memory splane of Ball and slove, total system memory shared 1 GB maximum video memory Graphics HDMI Yes, with internal pin header, supports max. resolution 4096 x 2160 of 60 Hz (HDMI 2.0) Graphics HDMI Yes, with internal pin header, supports max. resolution 4096 x 2160 of 60 Hz Elbrent Display Port 1.2 Yes, with internal pin header, supports max. resolution 4096 x 2160 of 60 Hz Elbrent Octroller GEL EAN¹: Intel 2219ML LAN2: Intel 1211AT Controller GEL EAN¹: Intel 2219ML LAN2: Intel 1211AT Controller GEL EAN¹: Intel 2219ML LAN2: Intel 1211AT SATA Display Port 1.2 1 Elbrent I/O Display Fort 1.2 1 Elbrent I/O Elbrent I/O (BUS S. 3.0) (BUS S. 3.0) LIMIT I/O Problem I/O (BUS S. 3.0) (BUS S. 3.0) LI | | | | | | 0040 0000 | | | | | | | | |
| Pole x16 (Bars) | Evananian Clat | | | | | | | | | | | | | |
| Memory Technology Max Capacity 2133/2400 MH* SDRAM Max Capacity 326B (up to 1668 per SO-DIMM) Socket 2 x 200 PIN DOR4 SO-DIMM (Non-ECC) Controller Supports Oper Gist Sx, DirectXT2, Open CL 2X VFAM Shared System memory 2, 268 and above, total system memory shared 1 GB maximum video memory UND Supports dual channel 44b-flu up 1920 x 1200 e0P Supports dual channel 44b-flu up 1920 x 1200 e0P Yes, supports max. resolution 4980 x 2160 @60 Hz Elment Interface 107/00/1000 Mbps Free Third Head of 107/00/1000 Mbps Elment Connector RL-45 x 2 Gone By System 12 x 2 SATA Max Data Transet Rate Channel 600 MB/s (SATA 3.0) Free Third Head of 11 x 2 Element 2 x 2 SATUMI, 1 SATA DOM) 1 (HDM2 20 or HDM1 12) Bear I/O 1 (HDM2 20 or HDM1 12) 1 (HDM2 20 or HDM1 12) Bisplay Port 1.2 2 (1 RS-232, supports SW12V.1 RS-232/422/485) Serial Multiple System resolution of Properties 1 (1 RS-322, supports SW12V.1 RS-232/422/485) Serial (1 RS-323, supports SW12V.1 RS-232/422/485) SATA 3 (SATA 3.0) 3 (SATA 3.0) Serial (1 RS-323, supports SW12V.1 RS-232/422/485) Matching For SSD and 36 supported) 1 (1 RS-32) 1 (1 RS-32 | Expansion Siot | | n2) | , . | , , | iportea) | | | | | | | | |
| Memory Max. Capacity 2x 260 PIN D0R4 SO-DIMM (Non-EC) Solate 2 x 260 PIN D0R4 SO-DIMM (Non-EC) Graphics Controller Supports OpenGL S. X, DirectN12, OpenCL 2 X Graphics HDMI Yes, supports dual channel 48-th up to 1920 x 1200 Graphics HDMI Yes, supports dual channel 48-th up to 1920 x 1200 Graphics HDMI Yes, supports max. resolution 4906 x 2160 @60 Hz (HDM12.0) Yes (HDM12.0) Elbernet Display port 1.2 Yes, supports max. resolution 4906 x 2160 @60 Hz (HDM12.0) Yes (HDM12.0) Elbernet Controller GE LANT: intel 219 LM; LANZ: intel 1211 AT Yes (HDM12.0) SATA Max Oata Transfer Rate 600 MB/s (SATA 3.0) Yes (HDM12.0) Connector REFERENCE 1 (HDM12.0 or HDM11.2) Yes (HDM12.0 or HDM11.2) Rear I/O LEINTER 2 (LS SATA) Yes (HDM12.0 or HDM11.2) LINEAR HDM1 1 (HDM12.0 or HDM11.2) Yes (HDM12.0 or HDM11.2) LEINTER LEINTER 2 (LS SATA) Yes (LS SATA) LINEAR AUG 3 (LS SATA 3.0) Yes (LS SATA) Yes (LS SATA) LINEAR AUG <td></td> <td></td> <td>:113)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | | | :113) | | | | | | | | | | | |
| Socket | Memory | 0, | hv | , | | | | | | | | | | |
| Controller | Wichiory | | . у | | | C) | | | | | | | | |
| NAM | | | | | | | | | | | | | | |
| MDM | | | | | | | nory shared 1 GB max | kimum video memory | 1 | | | | | |
| Graphics HDMI (PP) Yes, suphorts max. resolution 4906 x 2160 @60 Hz (HDMI 2.0) e (PP) Yes, with internal pin header, supports max. resolution 4906 x 2160 @60 Hz Property of the page of the | | | | | | | nory onarod 1 db ma | umam vidoo momory | | | | | | |
| Port | Granhics | | | | | | 120) | | | | | | | |
| Display Port 1.2 Ves, supports max. resolution 3840 x 2160 @ 60Hz Triple Display DP+HDMH-UDS, DP+HDMH-eDP | агарттоо | | | | | | | | | | | | | |
| Inlerface | | Display Port | 1.2 | | | | | | | | | | | |
| Ethenet Confroller Connector GbE LAN1: Intel i 219LM; LAN2: Intel I211AT SATA Max Data Transter Rate Channel 600 MB/s (SATA 3.0) Channel 3 (2 SATAIII, 1 SATA DOM) Rear I/O HDMI 1 (HDMI 2.0 or HDMI 1.2) Bisplay Port 1.2 1 (USB 3.0) LUSB 4 (USB 3.0) LUMS 4 (USB 3.0) LUMS (Connector) 1 (SEC) Phoenix Connector 1 (SEC) LVDS/inverter 1 (SEC) Serial 2 (1 RS-232, supports 5V/12V, 1 RS-232/422/485) Serial 2 (1 RS-232, supports 5V/12V, 1 RS-232/422/485) SaTA 3 (SATA 3.0) Mini-Pcle 1 (F/S x1, mSATA supported) InDA 2 (I RS vf or SSD and 3G supported) InDA 3 (BY sterriest) Watchdog Timer 4 (Diput power 4 (S Verian reset) Interval 2 (2 4V DC Input power) Non-Operating Power Requirements Imput power 12 - 24V DC Input power popular power Non-Operating Environment Temperature 0 - 60° C (32 - 140° F), depends on CPU speed and cooler 40 - 85° C (-40 - | | Triple Display | У | DP*++HDMI+LVDS | DP+++HDMI+ eDP | | | | | | | | | |
| SATA Max Data Transfer Rat Dom (SATA 3.0) A Dom Data Transfer Rat Dom (SATA 3.0) A HOMI (Dimize or HOMI 1.2) B HOMI (Display Port 1.2 1 (HOME 2.0 or HOMI 1.2) Eithered (Display Port 1.2 1 (HOME 2.0 or HOMI 1.2) USB (USB 3.0) A didio (Audio (A | | Interface | | 10/100/1000 Mbps | 3 | | | | | | | | | |
| SATA Max Data Transfer Rate Channel 600 MB/s (SATA 3.0) Channel 3 (2 SATAIII, 1 SATA DOM) Rear I/O HDMI 1 (HDMI 2.0 or HDMI 1.2) Display Port 1.2 1 (HDMI 2.0 or HDMI 1.2) Ethernet 2 USB 4 (USB 3.0) Audio 3 (Mic-in, Line-out, Line-in) Phoenix Connector 1 LVDS/inverter 1 Serial 2 (1 RS-232, supports 5V/12V, 1 RS-232/422/485) SATA 3 (SATA 3.0) Mini-PCle 1 (F/S x1, mSATA supported) Mini-PCle 1 (F/S x1, mSATA supported) M2 1 (B Key for SSD and 3G supported) IrDA - GPIO 8-bit Matchdog Timer Output System reset Interval Programmable 1 ~ 255 sec/min Power Requirements Input power 12 ~ 24V DC Input Win Idle 19.28W (Intel core i7-6700 3.4GHz / DDR4 2133MHz 8GB x 2) Non-Operating Environment Temperature Operating Non-Operating | Ethernet | Controller | | GbE LAN1: Intel i2 | 19LM; LAN2: Intel I | 1211AT | | | | | | | | |
| Name SATA SATA SATA SATA DOM) Sata SATA SATA DOM) Sata SATA SATA DOM Sata SATA SATA DOM SATA SA | | Connector | | RJ-45 x 2 | | | | | | | | | | |
| Name | SATA | | nsfer Rate | | | | | | | | | | | |
| Display Port 1.2 1 | Ortire | | | | | | | | | | | | | |
| Ethernet 2 USB 4 (USB 3.0) 4 (USB 3.0) Audio 3 (Mic-in, Line-out, Line-in) 4 (USB 3.0) Phoenix Connector 1 4 (USB 3.0) 4 (USB 3.0) LVDS/Inverter 1 5 (2 USB 3.0, 4 USB 2.0) 4 (USB 3.0) 4 (USB 3.0) <th< td=""><td></td><td></td><td></td><td>,</td><td>MI 1.2)</td><td></td><td></td><td></td><td></td><td></td><td></td></th<> | | | | , | MI 1.2) | | | | | | | | | |
| Name | | ' ' | 1.2 | | | | | | | | | | | |
| OSB | Rear I/O | | | | | | | | | | | | | |
| Phoenix Connector 1 LVDS/inverter 1 Serial 2 (1 RS-232, supports 5V/12V, 1 RS-232/422/485) SATA 3 (SATA 3.0) Mini-PCle 1 (F/S x1, mSATA supported) M2 1 (B Key for SSD and 3G supported) IrDA - GPIO 8-bit Watchdog Timer Output System reset Interval Programmable 1 ~ 255 sec/min Power Requirements Input power 12 ~ 24V DC Input Windle Loce i7-6700 3.4GHz / DDR4 2133MHz 8GB x 2) Environment Temperature Operating O ~ 60° C (32 ~ 140° F), depends on CPU speed and cooler of ~ 40 ~ 85° C (-40 ~ 185° F) | ,. | | | ` / | | | | | | | | | | |
| USB 6 (2 USB 3.0, 4 USB 2.0) | | | | 3 (Mic-in, Line-out | , Line-in) | | | | | | | | | |
| LVDS/inverter 1 Serial 2 (1 RS-232, supports 5V/12V, 1 RS-232/422/485) SATA 3 (SATA 3.0) Mini-PCle 1 (F/S x1, mSATA supported) M.2 1 (B Key for SSD and 3G supported) IrDA - GPIO 8-bit System reset Interval Programmable 1 ~ 255 sec/min Input power 12 ~ 24V DC Input Windle 19.28W (Intel core i7-6700 3.4GHz / DDR4 2133MHz 8GB x 2) Operating Operating Operating Operating Operating One of 0° C (32 ~ 140° F), depends on CPU speed and cooler -40 ~ 85° C (-40 ~ 185° F) Operating | | | nector | 0 (0 1100 0 0 4 110 | D 0 0) | | | | | | | | | |
| Serial 2 (1 RS-232, supports 5V/12V, 1 RS-232/422/485) SATA 3 (SATA 3.0) Mini-PCle 1 (F/S x1, mSATA supported) InDA - GPIO 8-bit Botton 1 (Programmable 1 ~ 255 sec/min Power Requirements Input power 12 ~ 24V DC Input Win Idle 19.28W (Intel core i7-6700 3.4GHz / DDR4 2133MHz 8GB x 2) Environment Temperature O-60° C (32 ~ 140° F), depends on CPU speed and cooler -40 ~ 85° C (-40 ~ 185° F) | | | r | 6 (2 USB 3.0, 4 US | B 2.0) | | | | | | | | | |
| SATA 3 (SATA 3.0) | | | 1 | 2 /1 DC 222 cupp | orte 51//101/ 1 DC 1 | 227/422/405\ | | | | | | | | |
| Mini-PCle 1 (F/S x1, mSATA supported) M.2 1 (B Key for SSD and 3G supported) M.2 1 (B Key for SSD and 3G supported) M.2 M.2 M.2 M.3 M. | | | | | JIIS 3V/12V, 1 NO-2 | 232/422/403) | | | | | | | | |
| M.2 | Internal Connector | | | | cunnorted) | | | | | | | | | |
| IrDA | | | | | / | | | | | | | | | |
| GPIO 8-bit Watchdog Timer Output Interval System reset Programmable 1 ~ 255 sec/min Power Requirements Input power 12 ~ 24V DC Input Windle 19.28W (Intel core i7-6700 3.4GHz / DDR4 2133MHz 8GB x 2) Environment Temperature Operating O ~ 60° C (32 ~ 140° F), depends on CPU speed and cooler solution Non-Operating -40 ~ 85° C (-40 ~ 185° F) | | | | ` , | na oa sapportoa) | | | | | | | | | |
| Watchdog Timer Output Interval System reset Power Requirements Input power 12 ~ 24V DC Input Win Idle 19.28W (Intel core i7-6700 3.4GHz / DDR4 2133MHz 8GB x 2) Environment Temperature Operating O - 60° C (32 ~ 140° F), depends on CPU speed and cooler solution Non-Operating - 40 ~ 85° C (-40 ~ 185° F) | | | | 8-hit | | | | | | | | | | |
| Interval Programmable 1 ~ 255 sec/min | | | | | | | | | | | | | | |
| Power Requirements Input power 12 ~ 24V DC Input Win Idle 19.28W (Intel core i7-6700 3.4GHz / DDR4 2133MHz 8GB x 2) Operating Non-Operating Temperature 0 ~ 60° C (32 ~ 140° F), depends on CPU speed and cooler solution -40 ~ 85° C (-40 ~ 185° F) | Watchdog Timer | | | , | 255 sec/min | | | | | | | | | |
| Win Idle 19.28W (Intel core i7-6700 3.4GHz / DDR4 2133MHz 8GB x 2) Operating Non-Operating Temperature 0 ~ 60° C (32 ~ 140° F), depends on CPU speed and cooler solution -40 ~ 85° C (-40 ~ 185° F) | D D : 1 | | | | , | | | | | | | | | |
| Environment Temperature O ~ 60° C (32 ~ 140° F), depends on CPU speed and cooler -40 ~ 85° C (-40 ~ 185° F) | Power Requirements | | | | ntel core i7-6700 3 | .4GHz / DDR4 2133 | MHz 8GB x 2) | | | | | | | |
| lemperature solution -40 - 85° C (-40 ~ 185° F) | | | | | | | | | | | | | | |
| | Environment | Temperature | | | 0° F), depends on | CPU speed and cool | er -40 ~ 85° C (-4 | 0 ~ 185° F) | | | | | | |
| | Physical Characteristics | Dimensions | | 170 mm x 170 mm | (6.69" x 6.69") | | | | | | | | | |



Ordering Information

| P/N | Chipset | DP | LVDS/eDP | HDMI | GbE LAN | COM | M.2 | SATA | USB 3.0/2.0 | MiniPCle | TPM | AMP | PClex16 |
|------------------|---------|----|----------|--------------|---------|-----|-----|------------------------|-------------|-------------------|-----|-----|---------|
| AIMB-275G2-00A2E | Q170 | 1 | 1/(1) | 1 (HDMI 2.0) | 2 | 2 | 1 | 3 (1 SATA DOM support) | 6/4 | 1 (F/S) | (1) | (1) | 1 |
| AIMB-275VG-00A2E | Q170 | 1 | 0 | 1 (HDMI 1.2) | 1 | 2 | 0 | 3 | 4/4 | 1 (F/S) | (1) | (1) | 1 |
| AIMB-275L-00A2E | H110 | 1 | 0 | 1 (HDMI 1.2) | 1 | 2 | 0 | 3 | 4/4 | 1(F/S) mSATA only | (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, 35cm) | 1 |
| 1700100250 | Serial port cable | 1 |
| 19Z0001186T020 | I/O port bracket | 1 |
| 2006027511 | Startup manual | 1 |
| 1700023082-11 | ATX cable 2*10P-4.2/1*3P-2.0 15cm | 1 |
| 1930006770-01 | M.2 Screw | 1 |
| 1910001675 | M.2 POST | 1 |
| 1930001071 | MiniPCle Screw | 1 |

Optional Chassis

| Part Number | Description |
|-----------------|--|
| AIMB-B2000-15ZE | Mini-ITX chassis with 150W ATX power supply |
| AIMB-B2000-00YF | Mini-ITX chassis (Optional external AC-DC 60W/84W Adaptor) |

Optional Accessories

| Part Number | Description |
|-----------------|---|
| 1700026162-01 | USB 2.0 cable with two ports, 30 cm with bracket |
| 1700020277-01 | Dual port USB 3.0 cable 30cm with IO bracket |
| 1703060191 | KB/MS cable 1*6P-2.0/M-DIN 6P(F)*2, 19cm |
| 1700023768-01 | 1x4P Phoenix to DC Jack 15cm cable |
| 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 |
| 96PSA-A120W12P4 | ADP A/D 100-240V 120W 12V C14 TERMINAL BLOCK 4P |

Riser Card

| Part Number | Description |
|------------------|--|
| AIMB-RF10F-01A1E | 1U riser card with 1 PClex16 expansion |
| AIMB-RF20F-02A1E | 2U riser card for 1xPClex16 to 2 PClex16 (both Lane are PCIEX8 only) |

^{**} compliant with AIMB-275G2/VG (Q170) sku only

I/O View

