

**AIMB-276**

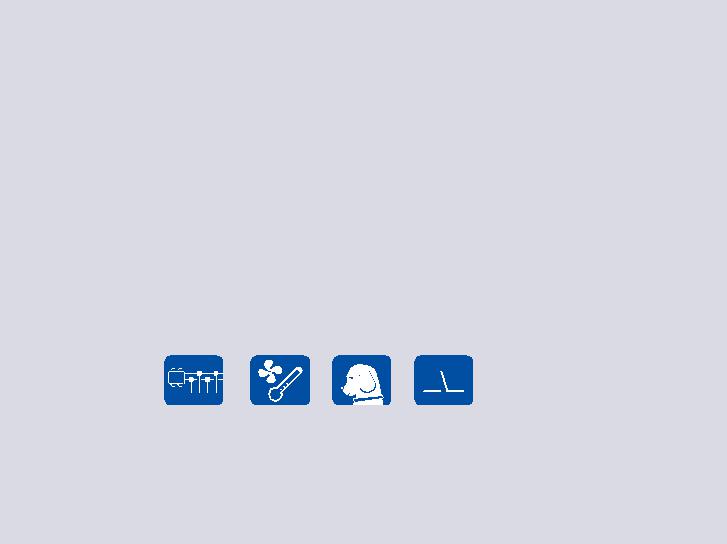


**RoHS**

**COMPLIANT**

**2002/95/EC**

**Intel® Core™ i7/i5/i3 LGA 1151 Mini-ITX 双DP++/HDMI/LVDS(eDP), 2 COM, Dual LAN, PCIe x16, M.2, DDR4, 直流输入**



**特性**

****支持第8代英特尔®Core™i处理器(LGA1151)与英特尔Q370芯片组****两个260引脚SO-DIMM高达32GB DDR4 2666兆赫兹存储****支持双DP++/HDMI 2.0a/LVDS(或eDP)独立三显

****支持PCIe x16(第3代)，1 x M.2 B键+ 1 x M.2 E键，6 USB3.1和4 USB 3.0，和3 SATA III ****支持宽范围12V~24V直流输入

****支持英特尔vPro, AMT 12.0，软件RAID 0.1 . 5.10, TPM 1.2 /2.0(可选)

****支持WISE-PaaS/RMM以及嵌入式软件APIs

**软件 APIs:**

SMBus H/W Monitor Watchdog GPIO

**公用设施:**

BIOS flash Monitoring

**规格列表**



|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | CPU | i7-8700/i7-8700T | | i5-8500/i5-8500T | i3-8100/i3-8100T | Pentium G5400/G5400T | Celeron G4900/G4900T |  |
|  | 芯片数 | 6/6 | | 6/6 | 4/4 | 2/2 | 2/2 |  |
|  | 最大主频 | 3.2/2.4 GHz | | 3.0/2.1 GHz | 3.6/3.1 GHz | 3.7/3.1 GHz | 3.1/2.9 GHz |  |
| 处理器 | 智能缓存 | 12/12 MB | | 9/9 MB | 6/6 MB | 4/4 MB | 2/2 MB |  |
|  | TDP | 65/35 W | | 65/35 W | 65/35 W | 54/35 W | 54/35 W |  |
|  | 芯片组 | Q370 | |  |  |  |  |  |
|  | BIOS | AMI EFI 256 Mbit SPI | |  |  |  |  |  |
|  | M.2 | 2, 1 x B key for SSD and 3G/4G (Type: 2242, 3042mm) & 1 x E key for wireless (Type: 2230mm); | | | | |  |  |
| 扩展槽 | B key 默认支持SATA/PCIe 通道, USB2.0 支持BOM更改 | | | |  |  |  |
|  |  |  |  |
|  | PCIe x16 (Gen3) | 16 GB/s per direction, 1 slot | | |  |  |  |  |
|  | 技术 | 单通道 DDR4 2666 MHz SDRAM 32GB | | |  |  |  |  |
| 内存 | 最大可支持容量 | (高达16GB per SO-DIMM) | | |  |  |  |  |
|  | 插槽 | 2 x 260 PIN DDR4 SO-DIMM (Non-ECC) | | |  |  |  |  |
|  | 控制器 | Intel® UHD Graphics 630 / Intel® HD Graphics 615 | | |  |  |  |  |
|  | LVDS | 支持单通道 24-bit高达1920 x 1200 | | |  |  |  |  |
| 显示 | HDMI | Yes, 支持最大分辨率 4096 x 2160 @60 Hz (HDMI 2.0a) | | | |  |  |  |
| eDP | Yes, 带internal pin header, 支持最大分辨率4096 x 2304 @ 60 Hz (BOM optional) Yes, | | | | |  |  |
|  |  |  |
|  | 显示端口 1.2 | 支持 2 x DP++ 最大分辨率 4096 x 2304 @ 60 Hz | | |  |  |  |  |
|  | 三显 | DP+DP+HDMI, DP+HDMI+LVDS (or eDP), LVDS(or eDP)+DP+DP | | | |  |  |  |
|  | 接口 | 10/100/1000 Mbps | |  |  |  |  |  |
| 以太网 | 控制器 | GbE LAN1: Intel i219LM; LAN2: Intel I211AT | | |  |  |  |  |
|  | 连接器 | RJ-45 x 2 | |  |  |  |  |  |
| SATA | 最大数据传输速率 | 600 MB/s (SATA 3.0) | |  |  |  |  |  |
| 通道 | 3 | (SATA III) |  |  |  |  |  |
|  |  |  |  |  |  |
|  | HDMI | 1 | (HDMI 2.0a) |  |  |  |  |  |
|  | 显示端口 1.2 | 2 |  |  |  |  |  |  |
| 后置I/O | 以太网 | 2 |  |  |  |  |  |  |
| USB | 6 | USB 3.1 + 2 USB USB 3.0 (USB06 is USB 3.1 type C, supports 5V/3A, BOM optional) | | | |  |  |
|  |  |  |
|  | Audio | 3 | (Mic-in, Line-out, Line-in) | |  |  |  |  |
|  | Phoenix 连接器 | 1 |  |  |  |  |  |  |
|  | USB | 2 | (USB 3.0) |  |  |  |  |  |
|  | LVDS/inverter | 1 |  |  |  |  |  |  |
|  | Serial | 2 | (1 x RS-232/422/485, 1 x RS-232, supports 5V/12V) | | |  |  |  |
| 内置连接器 | SATA | 3 | (SATA 3.0) |  |  |  |  |  |
|  | 2, 1 x B key for SSD and 3G/4G (Type: 2242, 3042mm); | | | |  |  |  |
|  | M.2 |  |  |  |
|  | 1 x E key for wireless (Type: 2230mm) | | |  |  |  |  |
|  |  |  |  |  |  |
|  | IrDA | - |  |  |  |  |  |  |
|  | GPIO | 8-bit | |  |  |  |  |  |
| 看门狗计时器 | 输出 | 系统复位 | |  |  |  |  |  |
| 间隔 | 可编程的1 ~ 255 sec/min | | |  |  |  |  |
|  |  |  |  |  |
| 电源需求 | 输入功率 | 12 ~ 24V DC Input | |  |  |  |  |  |
|  | TBD | |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 环境 |  | 工作 | |  | 非工作 |  |  |  |
| 温度 | 0 | ~ 60° C (32 ~ 140° F), 取决于CPU运行速 | | -40 ~ 85° C (-40 ~ 185° F) |  |  |  |
|  | 度及冷却器解决方案 | |  |  |  |  |
|  |  |  |  |  |  |  |
| 物理特性 | 尺寸 | 170 mm x 170 mm (6.69" x 6.69") | | |  |  |  |  |



**Industrial Motherboards & Systems**

All product specifications are subject to change without notice. Last updated: 25-Feb-2019

**AIMB-276**

**框架图**

Display Port 1.2

Display Port 1.2

LVDS 24/48 bits

eDP (optional)

HDMI 2.0a

3 SATA III Ports



6 USB 3.1 ports,

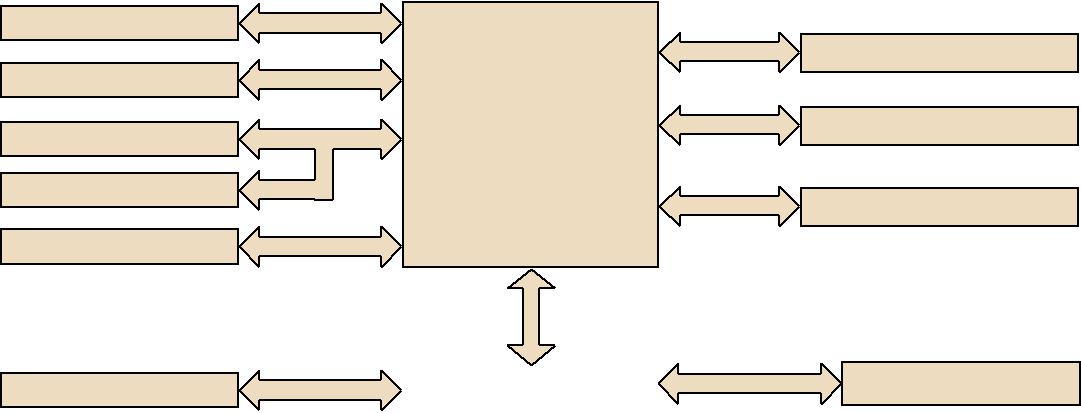
USB06 is optional

(type C)



4 USB 3.0 ports

Display port



PCIe x 16

Display port

Intel 8th Gen

Display port Core i7/i5/i3/Pentium/ Channel A Celeron processor

Channel B

Display port

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | DMI x 4 |  |  |  |  |
| SATA 3 | |  | |  |  |  | PCIe x1 |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |  | PCIe x1 |  |
| USB 3.1 | |  | | Q370 |  |  | PCIex1 |  |
|  |  |  |  |  |  |  | USB 2.0 |  |
| USB 3.0 | |  |  |  |  |  | SATA/ PCIex2 |  |
|  | |  |  |  |  |  |
|  |  |  |  |  |  |  | USB 2.0 |  |
|  | HD Audio | | | SPI |  | LPC | |  |
|  |  |  |  |  |  |  |  |  |
|  | Audio Codec | |  | BIOS |  | Inÿneon TPM 1.2/2.0 | |  |
|  | Realtek ALC888S | |  |  | (Optional) | |  |
|  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |



PCIe x 16 (Gen 3)

DDR4 2666 MHz SO-DIMM

DDR4 2666 MHz SO-DIMM

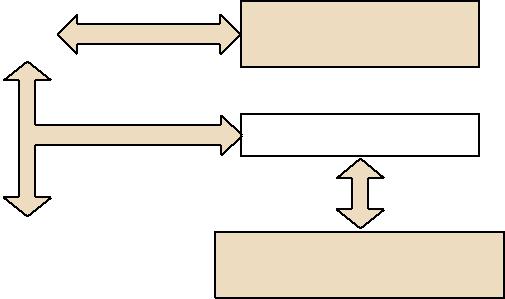
GbE LAN1: Intel I219LM



GbE LAN2: Intel I211AT



M.2\_E key



M.2\_B key

(USB2.0 support by

BOM change)

Super IO Nuvuton 6776D

1 x RS-232 & 1 x RS-232/422/485,

PS/2, WDT, 8-bit GPIO

**订购信息**

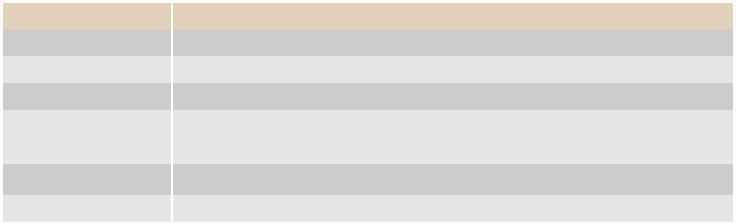
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **P/N** | **芯片组** | **DP** | **LVDS/eDP** | **HDMI** | **GbE LAN** | **COM** | **M.2 B key** | **M.2 E key** | **SATA III** | **USB 3.1/3.0** | **TPM** | **AMP** | **PCIex16** | **Power** |  |
| AIMB-276G2-00A1E | Q370 | 2 | 1/(1) | 1 | 2 | 2 | 1, Type: 2242 & 3042 | 1, Type: 2230 | 3 | 5+(1)/4 | (1) | (1) | 1 | 12~24V (via phoenix |  |
| connector) |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AIMB-276G2-01A1E | Q370 | 2 | 1/(1) | 1 | 2 | 2 | 1, Type: 2242 & 3042 | 1, Type: 2230 | 3 | 5+(1)/4 | (1) | (1) | 1 | 12V (via ATX12V1) |  |

\*() BOM options available on MP version.

**包装列表**



**可选附件**



|  |  |  |
| --- | --- | --- |
| **料号** | **说明** | **数量** |
| 1700003194 | SATA HDD cable | 1 |
| 1700018785 | SATA power cable (1 port, 25cm) | 1 |
| 1700022363-01 | 1-to-1 serial port cable 17CM | 2 |
| TBD | I/O port bracket | 1 |
| TBD | Startup manual | 1 |
| 1700023082-11 | ATX 2\*10P to 1\*3P-2.0 25cm cable | 1 |

**料号**

1700020277-01

1703060191

1700023768-01

1960053207N001

1960060732N001 96PSA-A120W12P4

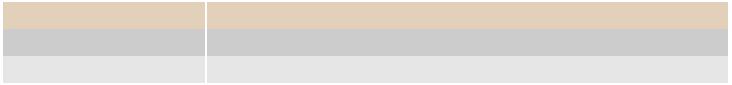
**说明**

Dual port USB 3.0 cable 30cm with IO bracket KB/MS cable 1\*6P-2.0/M-DIN 6P(F)\*2, 19cm 1x4P Phoenix to DC Jack 15cm cable

LGA1150 CPU cooler for CPU TDP  65W, 92.9 (W) x 92.9 (L) x 46 (H) mm

LGA1150 CPU cooler for CPU TDP  45W, 80 (W) x 80 (L) x 32.2 (H) mm ADP A/D 100-240V 120W 12V C14 TERMINAL BLOCK 4P

**可选底盘**



**料号** **说明**

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

AIMB-B2000-00YE Mini-ITX chassis (Optional external AC-DC 60W/84W Adaptor)

**I/O 视图**

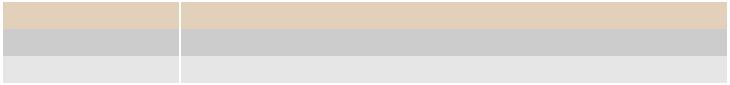


**嵌入式OS/API**

|  |  |  |  |
| --- | --- | --- | --- |
| **OS/API** | **Part No.** | **968 P/N** | **说明** |

Windows 10

**转接卡**



**料号** **说明**

AIMB-RF10F-01A1E 1U riser card with 1 PCIex16 expansion

AIMB-RF20F-02A1E 2U riser card for 1xPCIex16 to 2 PCIex16 (both Lane are PCIEX8 only) \*\* compliant with AIMB-276G2 (Q370) sku only

**Online Download** www.advantech.com/products