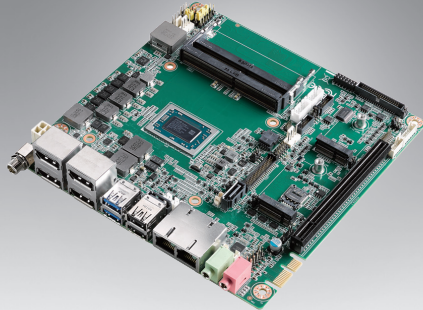


# AIMB-228

AMD V-series/R-series mini-ITX with  
4 DP, 6 USB, 6COM, 12-24V DC-In



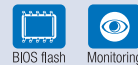
## Features

- Support AMD V1000/R1000 processor
- Two 260-pin SO-DIMM up to 32GB DDR4 2400/2666/3200 SDRAM
- Support multi display, Max up to 4 displays
- Supports 1 PCIe x8, 1x PCIe1(Golden finger) and 2 M.2 expansion slots
- 6 COM, 4 USB 2.0, 2 USB 3.1 Gen2
- Supports WISE-PaaS/RMM and Embedded Software APIs
- Support 12-24V wide voltage DC-In

### Software APIs:



### Utilities:

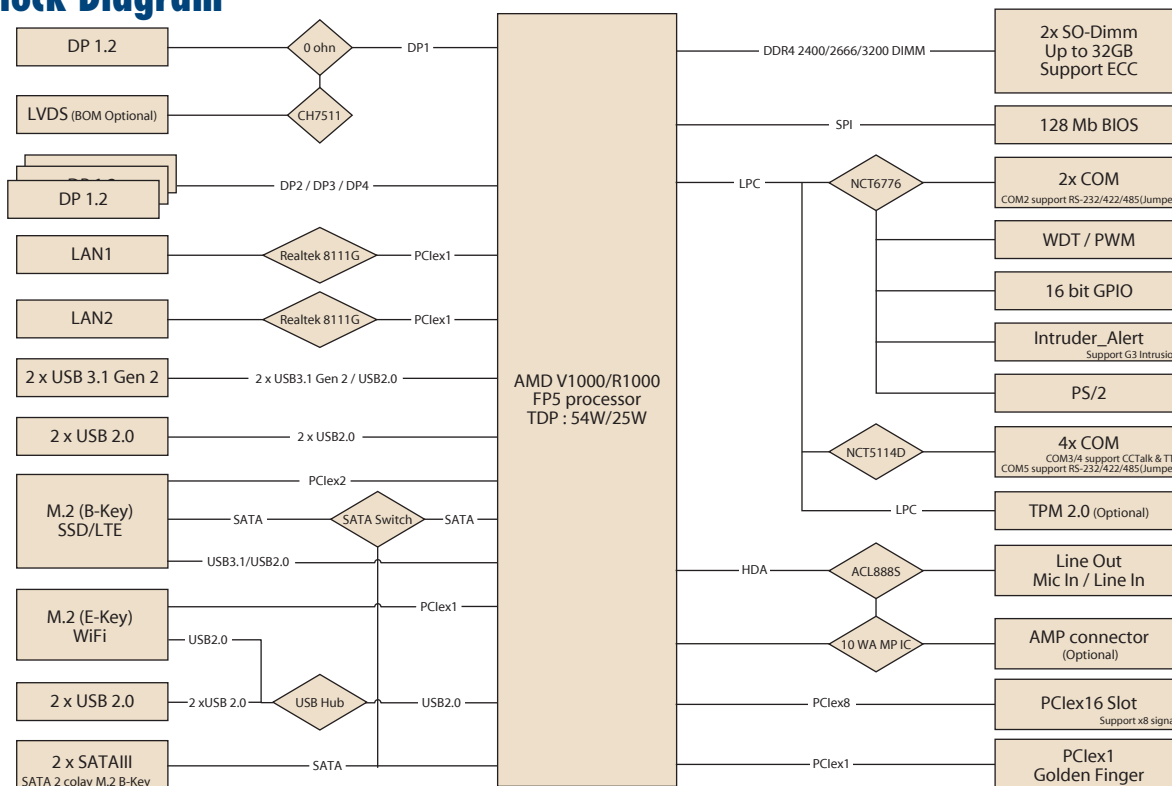


WISE-PaaS/RMM CE FCC RoHS

## Specifications

|                          |                            |                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                    |                           |                            |                           |                           |                          |  |
|--------------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|---------------------------|----------------------------|---------------------------|---------------------------|--------------------------|--|
| Processor System         | SOC (14nm)                 | V1807B                                                                                                                                                                                                                                                                                                                                                                                              | V1605B                                                                                                             | V1202B                    | R1606G                     | R1505G                    | R1305G                    | R1102G                   |  |
|                          | Max. Speed                 | 3.8GHZ<br>(Quad Core 54W)                                                                                                                                                                                                                                                                                                                                                                           | 3.6GHZ<br>(Quad Core 25W)                                                                                          | 3.2GHZ<br>(Dual Core 25W) | 3.5GHZ<br>(Dual Core 25W)  | 3.3GHZ<br>(Dual Core 25W) | 2.8GHZ<br>(Dual Core 10W) | 2.6GHZ (Dual<br>Core 6W) |  |
|                          | L2 Cache                   | 2Mb                                                                                                                                                                                                                                                                                                                                                                                                 | 2Mb                                                                                                                | 2Mb                       | 1Mb                        | 1Mb                       | 1Mb                       | 1Mb                      |  |
|                          | BIOS                       | AMI 128Mbit SPI                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                    |                           |                            |                           |                           |                          |  |
| Expansion Slot           | M.2                        | 1 B-Key, 1 E-Key (V1000 series only)                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                    |                           |                            |                           |                           |                          |  |
|                          | PCIe                       | 1 PCIe x8 (R1000 Series only support x4 signal, R1102 not support), 1 PCIe x1 (V1000 Series only)                                                                                                                                                                                                                                                                                                   |                                                                                                                    |                           |                            |                           |                           |                          |  |
| Memory                   | Technology                 | Dual Channel DDR4 2400 / 2666 / 3200MHz SDRAM                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                    |                           |                            |                           |                           |                          |  |
|                          | Max. Capacity              | 32 GB/16 GB per SO-DIMM                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                    |                           |                            |                           |                           |                          |  |
|                          | Socket                     | 2 x 260-pin DDR4 SO-SIMM with ECC Support (R1102 only support 1 socket)                                                                                                                                                                                                                                                                                                                             |                                                                                                                    |                           |                            |                           |                           |                          |  |
| Graphics                 | Controller                 | AMD Integrated Vega GCN                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                    |                           |                            |                           |                           |                          |  |
|                          | LVDS                       | 1, supports dual channel 48-bit up to 1920 x 1200 (Optional)                                                                                                                                                                                                                                                                                                                                        |                                                                                                                    |                           |                            |                           |                           |                          |  |
|                          | Display Port 1.2           | 4, Supports DP++, resolution up to 4096 x 2160 @ 60Hz(V1000 Series)<br>3, Supports DP++, resolution up to 4096 x 2160 @ 60Hz(R1000 Series)<br>2, Supports DP++, resolution up to 4096 x 2160 @ 60Hz(R1102G)                                                                                                                                                                                         |                                                                                                                    |                           |                            |                           |                           |                          |  |
|                          |                            | Multi Display                                                                                                                                                                                                                                                                                                                                                                                       | V1000: DP/LVDS+DP+DP+DP<br>R1000:DP/LVDS+DP+DP<br>R1102G:DP/LVDS+DP                                                |                           |                            |                           |                           |                          |  |
|                          | Ethernet                   | Interface                                                                                                                                                                                                                                                                                                                                                                                           | 10/100/1000 Mbps                                                                                                   |                           |                            |                           |                           |                          |  |
| Ethernet                 | Controller                 | GbE LAN1: Realtek 8111G<br>GbE LAN2: Realtek 8111G                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                    |                           |                            |                           |                           |                          |  |
|                          | Connector                  | RJ-45 x 2                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                    |                           |                            |                           |                           |                          |  |
|                          | SATA                       | Max Data Transfer Rate                                                                                                                                                                                                                                                                                                                                                                              | 600 MB/s                                                                                                           |                           |                            |                           |                           |                          |  |
| Rear I/O                 | Channel                    | 2, SATA 2 colay M.2 B-Key; SATA 1 support SATA-DOM device                                                                                                                                                                                                                                                                                                                                           |                                                                                                                    |                           |                            |                           |                           |                          |  |
|                          | DP1.2 (Default)            | 4(V1000 Series)/3(R1000 Series)/2(R1102G)                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                    |                           |                            |                           |                           |                          |  |
|                          | Ethernet                   | 2                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                    |                           |                            |                           |                           |                          |  |
|                          | USB                        | 2 x USB 2.0/2 x USB 3.1 Gen2                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                    |                           |                            |                           |                           |                          |  |
|                          | Audio                      | 2 (Line out + Mic/Line in)                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                    |                           |                            |                           |                           |                          |  |
| Internal Connector       | DC jack                    | 1 (2.5 mm)                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                    |                           |                            |                           |                           |                          |  |
|                          | LVDS & Inverter (Optional) | 1/1                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                    |                           |                            |                           |                           |                          |  |
|                          | USB                        | 2 x USB2.0                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                    |                           |                            |                           |                           |                          |  |
|                          | Serial                     | 6,<br>COM1: support RS-232 with 5V/12V/Ring<br>COM2: support RS-232/422/485 supports 9 bit data/auto flow(select by Jumper)<br>COM3: Colay Cctalk(5/12V; Jumper select) ; singnal mix with RS232<br>COM4: support 5V/12V selection(by jumper); Colay TTL (5V, TX, RX only) ; singnal mix with RS232<br>COM5: support RS-232/422/485 supports 9 bit data/auto flow(select by Jumper)<br>COM6: RS-232 |                                                                                                                    |                           |                            |                           |                           |                          |  |
|                          |                            | SATA                                                                                                                                                                                                                                                                                                                                                                                                | 2                                                                                                                  |                           |                            |                           |                           |                          |  |
|                          |                            | SATA PWR Connector                                                                                                                                                                                                                                                                                                                                                                                  | 2                                                                                                                  |                           |                            |                           |                           |                          |  |
|                          |                            | PS/2 KB & MS                                                                                                                                                                                                                                                                                                                                                                                        | 1                                                                                                                  |                           |                            |                           |                           |                          |  |
|                          |                            | Intrusion Protection                                                                                                                                                                                                                                                                                                                                                                                | 1                                                                                                                  |                           |                            |                           |                           |                          |  |
|                          | Watchdog Timer             | GPIO                                                                                                                                                                                                                                                                                                                                                                                                | 16 bit                                                                                                             |                           |                            |                           |                           |                          |  |
|                          |                            | Output Interval                                                                                                                                                                                                                                                                                                                                                                                     | System reset<br>Programmable 1 ~ 255 sec/min                                                                       |                           |                            |                           |                           |                          |  |
|                          | Power                      | Power Type                                                                                                                                                                                                                                                                                                                                                                                          | Wide voltage 12~24V DC input; 1 x External DC jack; 1 x Internal 4-pin (2x2) power connector; Supports AT/ATX mode |                           |                            |                           |                           |                          |  |
|                          |                            | Typical Power Consumption                                                                                                                                                                                                                                                                                                                                                                           | TBD                                                                                                                |                           |                            |                           |                           |                          |  |
| Environment              | Operating                  |                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                    | Non-Operating             |                            |                           |                           |                          |  |
|                          | Temperature                | 0 ~ 60° C (32 ~ 140° F)                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                    |                           | -40 ~ 85° C (-40 ~ 185° F) |                           |                           |                          |  |
| Physical Characteristics | Dimensions                 | 170 mm x 170 mm (6.69" x 6.69")                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                    |                           |                            |                           |                           |                          |  |

## Block Diagram



## Ordering Information

| Part Number       | CPU    | Display             | TPM | LVDS | PCIe Slot | USB 3.1/2.0 | GbE | SATA | COM | Thermal Solution |
|-------------------|--------|---------------------|-----|------|-----------|-------------|-----|------|-----|------------------|
| AIMB-228VG2-00A1E | V1807B | DP/LVDS, DP, DP, DP | (1) | (1)  | x8        | 2/4         | 2   | 2    | 6   | Active           |
| AIMB-228VG2-02A1E | V1605B | DP/LVDS, DP, DP, DP | (1) | (1)  | x8        | 2/4         | 2   | 2    | 6   | Active           |
| AIMB-228VG2-03A1E | V1202B | DP/LVDS, DP, DP, DP | (1) | (1)  | x8        | 2/4         | 2   | 2    | 6   | Active           |
| AIMB-228RG2-00A1E | R1606G | DP/LVDS, DP, DP     | (1) | (1)  | x4        | 2/4         | 2   | 2    | 6   | Active           |
| AIMB-228RG2-01A1E | R1505G | DP/LVDS, DP, DP     | (1) | (1)  | x4        | 2/4         | 2   | 2    | 6   | Active           |
| AIMB-228RG2-02A1E | R1305G | DP/LVDS, DP, DP     | (1) | (1)  | x4        | 2/4         | 2   | 2    | 6   | Active           |
| AIMB-228RG2-03A1E | R1102G | DP/LVDS, DP         | (1) | (1)  | NA        | 2/4         | 2   | 2    | 6   | Active           |

\*( ) BOM options available on MP version.

## Packing List

| Part Number    | Description                                                          | Quantity |
|----------------|----------------------------------------------------------------------|----------|
| 1700003194     | SATA HDD cable                                                       | 1        |
| 1700018785     | SATA power cable (1 port, 25cm)                                      | 1        |
| 1700022363-01  | 1-to-1 serial port cable 17CM                                        | 2        |
| 1960091400T001 | I/O port bracket                                                     | 1        |
| 2046022800     | Startup manual                                                       | 1        |
| 1960089783T001 | CPU Cooler (CPU TDP 54W, V1807B)                                     | 1        |
| 1960089784T001 | CPU Cooler (CPU TDP 25W, V1605B/ V1202B/R1606G/R1505G/R1305G/R1102G) | 1        |

## Optional Accessories

| Part Number       | Description                                |
|-------------------|--------------------------------------------|
| 1700029538-01     | F Cable D-SUB 9P(M)*4/IDE#2 40P-1.27 35CM  |
| 96PSA-A150W12W7-3 | ADP A/D 100-240V 150W 12V LOCKABLE DC JACK |
| 1702002600        | Power cable 3-pin 180 cm, USA type         |
| 1702002605        | Power cable 3-pin 180 cm, Europe type      |
| 1702031801        | Power cable 3-pin 180 cm, UK type          |
| 1700000237        | Power cable 3-pin PSE Mark 183 cm          |
| 1700000596-11     | Power cable 3-pin 180 cm, China type       |

## Optional Chassis

| Part Number     | Description                              |
|-----------------|------------------------------------------|
| AIMB-B2000-00YE | AIMB-B2000 wallmount chassis w/o adaptor |

## I/O View



## Embedded OS

| OS    | Part No.       | 968 P/N    | Description                                                |
|-------|----------------|------------|------------------------------------------------------------|
| Win10 | 20706WX9VS0039 | 968QW19VLE | img W10 19VL AIMB-228 64b 1809 ENU (V1807B/V1605B)         |
| Win10 | 20706WX9ES0049 | 968QW19ELE | img W10 19EL AIMB-228 64b 1809 ENU (V1202B/R1606G/ R1505G) |

# Tento produkt můžete zakoupit u společnosti AutoCont IPC a.s.



## AutoCont IPC a.s.

Váš dodavatel průmyslových počítačů, komponent a speciálních průmyslových IT systémů.

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### PRŮMYSLOVÉ POČÍTAČE

fanless embedded PC, do racku, ...



### POČÍTAČE S DISPLEJEM

panelové PC, terminály, do vozidel, ...



### AUTOMATIZACE A SBĚR DAT

převodníky, karty, moduly, switche, ...



### PERIFERIE A KOMPONENTY

monitory, klávesnice, desky, skříně, ...



### NOTEBOOKY A TABLETY

odolné, windows, android, IP65, ...



### INFORMAČNÍ KIOSKY

interiérové, venkovní, ...



### MEDICÍNSKÁ TECHNIKA

počítače, tablety, LCD, klávesnice, ...



### SOFTWAREVÁ ŘEŠENÍ

pro výrobu, zaměstnance, kiosky, ...



### PŘEJÍT DO E-SHOPU

[eshop.autocont-ipc.cz](http://eshop.autocont-ipc.cz)



### DOPRAVA ZDARMA

Doprava zdarma v ČR a SR při objednávce nad 10 000 Kč bez DPH nebo nad 400 EUR.



### PRODLOUŽENÁ ZÁRUKA

Záruka 2 roky na vyráběné počítače s možností jejího prodloužení až na 5 let.



### ODMĚNA ZA VĚRNOST

Pravidelní zákazníci u nás nakupují za nižší ceny. Výše slevy se odvíjí od realizovaného obrátu.



### SERVIS ON-SITE A IN-TIME

K projektovým dodávkám nabízíme rozšířenou podporu a servis s garancí výměny zařízení do 48 hodin.