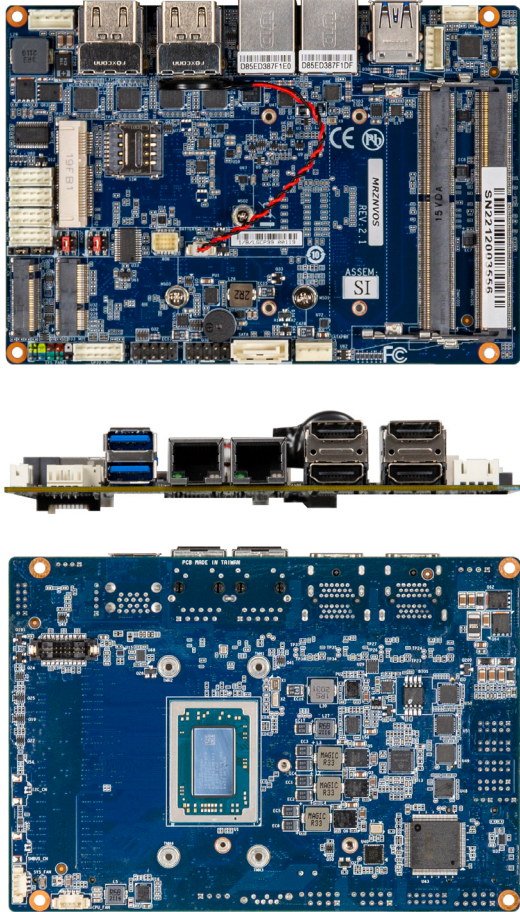


# QBIP-1605B (MRZNVOS)

3.5" SubCompact Embedded Motherboard with AMD Ryzen™ V1605B Embedded Processor, Dual Channel DDR4 memory, 4 x COM, 1 x SATA 6Gb/s, 6 x USB



## Specifications

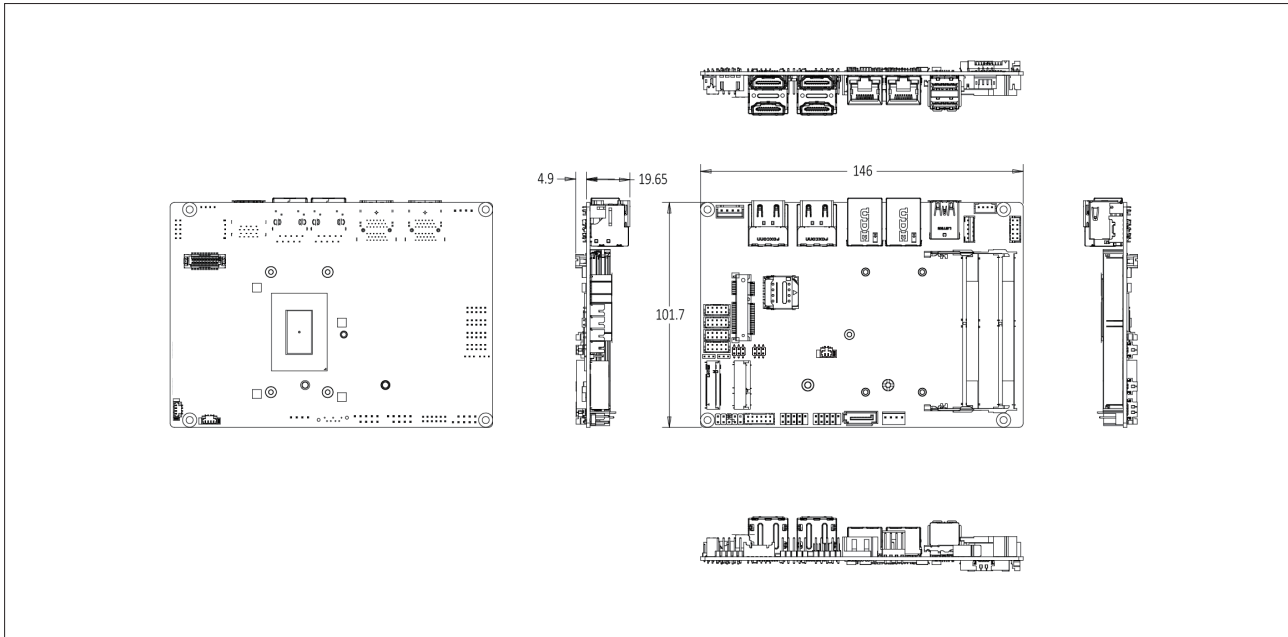
|             |                                                                                                                                                                                                                                                                        |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Form Factor | 3.5" SBC<br>146W x 101.7D mm                                                                                                                                                                                                                                           |
| CPU         | AMD Ryzen™ V1605B Embedded Processor<br>14nm, 4 cores, 8 threads, 2.0 GHz, up to 3.6 GHz<br>TDP 25W<br>2MB of shared L2 plus 4MB of shared L3 total                                                                                                                    |
| Socket      | 1 x FP5 type 1 BGA                                                                                                                                                                                                                                                     |
| Memory      | 2 x DDR4 SO-DIMM sockets, Max. Capacity 32 GB<br>Support Dual channel DDR4 2400/2133 MHz memory modules                                                                                                                                                                |
| Ethernet    | 2 x GbE LAN Ports (Realtek® RTL8111HS)                                                                                                                                                                                                                                 |
| Video       | Integrated Graphics Processor -<br>AMD Radeon™ Vega 8 Graphics:<br>4 x HDMI 2.0 ports, supporting a maximum resolution of 4096x2160 @60Hz<br>1 x eDP port, supporting a maximum resolution of 3840x2160 @60Hz (Share from HDMI)<br><br>(4 independent display outputs) |

## Features

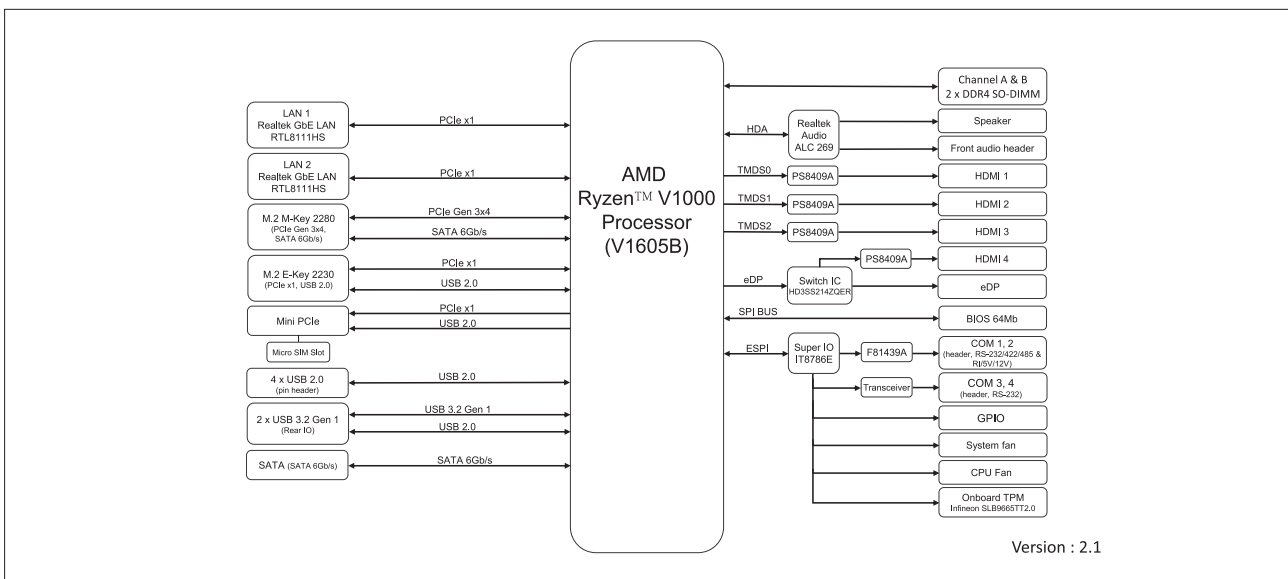
- 3.5" SBC
- AMD Ryzen™ V1605B Embedded Processor
- Dual Channel DDR4, 2 x SO-DIMMs
- 2 x GbE LAN Ports
- 1 x SATA 6Gb/s Port
- M.2 with SATA 6Gb/s or PCIe x4
- 4 x HDMI 2.0, eDP ports for multiple display
- 2 x COM Ports (RS-232/422/485 & RI/5V/12V)
- 2 x COM Ports (RS-232)

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Audio                | Realtek® Audio Codec                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Storage              | 1 x SATA 6Gb/s                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Expansion Slots      | 1 x 2280 M.2 M-Key (PCIe x4, SATA 6Gb/s)<br>1 x 2230 M.2 E-Key<br>1 x Full-size Mini PCIe with SIM slot (PCIe x1 + USB2.0) -- support 3G module                                                                                                                                                                                                                                                                                                             |
| Internal I/O         | 1 x 4-pin box power connector (DC in +9V~36VDC)<br>1 x SATA Power header<br>1 x CPU fan header<br>1 x System fan header<br>1 x Front panel header<br>1 x Front panel audio header<br>1 x 2W Speaker out header<br>4 x USB 2.0 headers<br>2 x COM headers (RS-232)<br>2 x COM headers (RS-232/422/485 & RI/5V/12V)<br>1 x Backlight Control header<br>1 x AT/ATX mode select jumper<br>1 x eDP/HDMI jumper<br>1 x GPIO (8-bits) & SMBus header<br>1 x Buzzer |
| Rear I/O             | 4 x HDMI<br>2 x RJ45 LAN Ports<br>2 x USB 3.2 Gen 1                                                                                                                                                                                                                                                                                                                                                                                                         |
| TPM                  | Onboard TPM 2.0 security chip<br>INFINEON SLB9665TT2.0                                                                                                                                                                                                                                                                                                                                                                                                      |
| OS Compatibility     | Windows 10 (x64)                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Operating Properties | Operating temperature: 0°C to 60°C<br>Operating humidity: 0-90% (non-condensing)<br>Non-operating temperature: -40°C to +85°C<br>Non-operating humidity: 0%-95% (non-condensing)                                                                                                                                                                                                                                                                            |
| Packing Content      | Carton size: 465 x 351 x 217 (mm)<br>Packing Capacity: 10pcs<br><br>Single Box size: 221 x 178 x 65 (mm)<br><br>Including:<br>SATA power Cable x 1 (P/N: 25CRI-200B02-K1R)                                                                                                                                                                                                                                                                                  |
| Order Information    | 9MRZNVOSMR-SI (Box Packing)                                                                                                                                                                                                                                                                                                                                                                                                                                 |

GIGAIPC reserves the right to modify or change technical data without prior notice.



## Block Diagram



## Optional Kit

| Part No.         | Description      | Quantity |
|------------------|------------------|----------|
| 25ST1-113104-A7R | Fanless Heatsink | 1        |
| 12SF2-01A073-00R | Fansink          | 1        |
| 25ST5-QP1600-A8R | Heat spreader    | 1        |

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