

# gKINO-VR1000

Mini-ITX SBC supports AMD® Ryzen™ Embedded V1000/R1000 Series on board SoC, DDR4, quadruple independent displays, dual GbE, SATA 6Gb/s, USB 3.2, M.2, COM, TPM 2.0, HD audio and RoHS



**gKINO-V1000 Series**

## Features

1. Mini ITX form factor with AMD® Ryzen™ Embedded processor supports dual-channel ECC DDR4 SO-DIMMs
2. Maximum up to quadruple DisplayPort output for multi-display support
3. M.2 slot support SATA or PCIe (2242/2280) & PCIe x16 slot support
4. Chassis intrusion detect pin and ECC support in gaming applications
5. COM RS-232 support Cctalk, TTL
6. TPM 2.0 hardware security function supported by TPM module

## Specifications

|                                 |  |
|---------------------------------|--|
| <b>Form Factor</b>              |  |
| Form Factor                     | Mini-ITX Motherboard   |
| <b>System</b>                   |  |
| CPU                             | AMD® Ryzen™ Embedded V1605B, Quad Core, 2MB Cache, 8 CU, 2.0GHz (3.6GHz), 12-25W |
|                                 | AMD® Ryzen™ Embedded V1202B, Dual Core, 1MB Cache, 3 CU, 2.3GHz (3.2GHz), 12-25W |
|                                 | AMD® Ryzen™ Embedded R1606G, Dual Core, 1MB Cache, 3 CU, 2.6GHz (3.5GHz), 12-25W |
|                                 | AMD® Ryzen™ Embedded R1505G, Dual Core, 1MB Cache, 3 CU, 2.4GHz (3.3GHz), 12-25W |
| Memory                          | 2 x SO-DIMM DDR4 2400MHz up to 64GB (ECC support)                                |
| Memory Max.                     | Up to 64GB   |
| Cooling method / System Fan     | 1 x CPU fan  |
| <b>Physical Characteristics</b> |  |
| Dimensions (LxWxH) (mm)         | 170mm x 170mm  |
| Net Weight                      | GW:900g / NW:400g  |
| <b>Storage</b>                  |  |
| Storage                         | 1 x M.2(NGFF)  |
|                                 | 1 x SATA   |
| <b>I/O Interface</b>            |  |
| Display Output                  | 4 x Display Port   |
| Ethernet                        | 2 x LAN: GbE LAN (RTL 8119I)   |
| Audio                           | 1 x Front Audio(2x5-pin)   |
|                                 | HD Audio: Realtek ALC662 HD audio codec  |
|                                 | 1 x Line out   |
|                                 | 1 x Mic  |
|                                 | 1 x S/PDIF   |
|                                 | 2 x Speaker: 2 x 6W audio amplifier L+R  |
| I/O Interface                   | 1 x DIO: 8-bit digital I/O (2x5 pin)   |
|                                 | 2 x External RS-232  |

|                       |   |
|-----------------------|---|
|                       | 2 x External USB 2.0  |
|                       | 2 x External USB 3.2 Gen1x1   |
|                       | 1 x External USB 3.2 Gen1x2   |
|                       | 6 x Internal RS-232- Detail:<br>2 x RS-232 (support Cctalk, TTL)(1x4 pin, P=2.54)<br>4 x RS-232 (2x5 pin, P=2.00) |
|                       | 2 x Internal USB 2.0(2x4 pin, P=2.0)  |
| Expansion             | 1 x M.2(NGFF): 1 x M.2 2242/2280 M key (PCIe x2/SATA)   |
|                       | 1 x PCIe x16(with x8 Gen 3.0 signal)  |
| <b>Other Features</b> |   |
| TPM                   | 1 x TPM 2.0 connector (2x10 pin) (LPC interface)  |
| Speaker               | 2 x 6W audio amplifier L+R  |
|                       | 1 x onboard SPDIF output  |
| <b>Power</b>          |   |
| Input                 | 12V DC input  |
|                       | 1 x External DC jack (4-pin DIN)  |
|                       | 1 x Internal power connector (2x2 pin)  |
| Power Consumption     | 12V@5.144A (AMD Ryzen V1605B 2.0GHz CPU with 2666 MHz 32GB DDR4 memory)   |
|                       | 12V@5.146A (AMD Ryzen R1606G 2.6GHz CPU with 2666 MHz 32GB DDR4 memory)   |
| <b>Environment</b>    |   |
| Operating Temperature | 0°C ~ 60°C  |
| Storage Temperature   | -10°C ~ 70°C  |
| Humidity              | 5% ~ 95%, non-condensing  |
| <b>Certifications</b> |   |
| Safety & EMC          | CE/FCC compliant  |

## Ordering Information

|                  |  |
|------------------|--|
| gKINO-V1605B-R10 | Mini-ITX SBC supports AMD® Ryzen™ Embedded V1605B on board SoC (quad-core 2.0GHz, 15W) , DDR4, quadruple independent displays, quadruple DP, dual GbE, SATA 6Gb/s, USB 3.2, M.2, COM, TPM 2.0, HD audio and RoHS |
| gKINO-V1202B-R10 | Mini-ITX SBC supports AMD® Ryzen™ Embedded V1202B on board SoC (dual-core 2.3GHz, 15W) , DDR4, quadruple independent displays, quadruple DP, dual GbE, SATA 6Gb/s, USB 3.2, M.2, COM, TPM 2.0, HD audio and RoHS |
| gKINO-R1606G-R10 | Mini-ITX SBC supports AMD® Ryzen™ Embedded R1606G on board SoC (dual-core 2.6GHz, 15W) , DDR4, triple independent displays, triple DP, dual GbE, SATA 6Gb/s, USB 3.2, M.2, COM, TPM 2.0, HD audio and RoHS       |
| gKINO-R1505G-R10 | Mini-ITX SBC supports AMD® Ryzen™ Embedded R1505G on board SoC (dual-core 2.4GHz, 15W) , DDR4, triple independent displays, triple DP, dual GbE, SATA 6Gb/s, USB 3.2, M.2, COM, TPM 2.0, HD audio and RoHS       |

## Packing List

|  |                |
|--|----------------|
| 1 x gKINO-V1000/R1000 series SBC with CPU cooler | 1 x SATA cable |
| 1 x I/O shielding                                | 1 x QIG        |