

# 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

| Form Factor                 |                                                                                  |
|-----------------------------|----------------------------------------------------------------------------------|
| Form Factor                 | Mini-ITX Motherboard                                                             |
| System                      |                                                                                  |
| 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                                                                      |
| Physical Characteristics    |                                                                                  |
| Dimensions (LxWxH) (mm)     | 170mm x 170mm                                                                    |
| Net Weight                  | GW:900g / NW:400g                                                                |
| Storage                     |                                                                                  |
| Storage                     | 1 x M.2(NGFF)                                                                    |
|                             | 1 x SATA                                                                         |
| I/O Interface               |                                                                                  |
| 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)                                                                              |
| Other Features        |                                                                                                                   |
| TPM                   | 1 x TPM 2.0 connector (2x10 pin) (LPC interface)                                                                  |
| Speaker               | 2 x 6W audio amplifier L+R                                                                                        |
|                       | 1 x onboard SPDIF output                                                                                          |
| Power                 |                                                                                                                   |
| 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)                                           |
| Environment           |                                                                                                                   |
| Operating Temperature | 0°C ~ 60°C                                                                                                        |
| Storage Temperature   | -10°C ~ 70°C                                                                                                      |
| Humidity              | 5% ~ 95%, non-condensing                                                                                          |
| Certifications        |                                                                                                                   |
| 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        |