ArcherOS安超®

ArcherOS All-in-One Server AR122-G3 Datasheet

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Product description

AR122-G3 is a high-end 2U high rack server equipped with the third-generation Intel® Xeon® Scalable processor. For different application scenarios, AR122-G3 maintains the consistent high-quality and high-reliability performance. This product meets the application configuration requirements of various industries with strong computing performance, perfect ecological compatibility, and flexible configuration transformation. It is used in various application scenarios such as data analysis and processing, deep learning distributed storage, etc.

Strong performance

- Based on the new generation of Intel® Xeon® third-generation scalable processors, a single CPU has up to 40 cores and 80 threads, and supports a maximum TDP of 270W CPU. The highest main frequency is 3.6 GHz, single-core 1.5 MB L3 cache and 3 sets of 11.2 GT/s UPI interconnection links enable the server to have high processing performance.
- Support 32 pieces of 3200 MT/s DDR4 ECC memory, the memory supports RDIMM type, which can provide excellent speed, high availability and a memory capacity of up to 4T.
- It supports DCPMM type memory, with a maximum memory capacity of 512G and a bandwidth of 3200MHz. While not reducing memory capacity and bandwidth, it can still save complete memory data when the power is completely cut off.

Flexible expansion

- It supports a maximum of 20 3.5" hard drives or 39 2.5" hard drives.
- Support optional OCP3.0 module, provide 10G, 25G, 40G, 100G, 200G network interface options, and provide a more flexible network structure for applications.
- It supports up to 11 standard PCIe expansions, which can be used to further improve I/O performance.
- Supports optional rear M.2/RSSD modules to meet diverse storage needs.

Intelligent management

- Based on the concept of humanized design, the whole system can be maintained without tools. Through the enhancement and optimization of some structural parts, quick disassembly and assembly are realized, and the operation and maintenance time is greatly shortened.
- Through the unique intelligent control technology and the advanced air cooling system, the whole machine can work in the best environment and ensure the stable operation of the system.
- Using the latest BMC technology, technicians can guide the equipment through the web management interface, fault diagnosis LED, etc., and mark the faulty machine through the UID indicator light on the front panel, so as to quickly find the components that have failed (or are failing) , which simplifies maintenance, speeds up problem resolution, and increases system availability.

Hardware specification

Characteristics	Technical specifications
Form	2U rack server
Number of processors	1/2
Processor model	3rd Generation Intel® Xeon® Scalable series processors, Ice Lake - SP up to 270W
Memory	Support up to 32 memory sticks. Each processor supports 8 memory channels, and each channel supports up to 2 memory slots. The maximum memory speed can reach 3200MT/s
Hard disk	Front : 24*2.5” SATA/SAS/NVMe supports hot swap 25*2.5” SATA/SAS supports hot swap 12*2.5”/3.5”SATA/SAS/NVMe support hot swap Rear : 4*2.5” SATA/SAS/NVMe SSD supports hot swap 4*3.5” SATA/SAS/NVMe SSD supports hot swap 10*2.5” SATA/SAS supports hot swap Optional 2 SATA M.2 or 2 short RSSD storage modules Built-in : 4*3.5” SATA/SAS does not support hot swap Maximum support for 2 TF cards, one for BIOS/BMC
Raid support	RAID card controller, SAS card controller Onboard PCH supports 14*SATA interface Intel onboard NVME controller, optional Intel NVMe Raid Key
Network Interface	1 optional OCP3.0 module 10Gb/s, 25Gb/s, 40Gb/s, 100Gb/s, 200Gb/s 1 set of dual 10G onboard network ports 10Gb/s Support standard 1Gb/10Gb/25Gb/40G/100Gb network card
PCIe expansion	Support up to 11 PCIe slots Support 4 double-width GPUs or 8 single-width GPUs/graphics cards; support 1 OCP3.0 x16 network card; support 1 RAID Mezz card
Other ports	2 rear USB3.0 ; 1 front USB 3.0 ; 1 front USB 2.0 ; 1 front VGA ; 1 rear VGA
Fan	4 hot-swappable N+1 redundant fans
Power supply	Support 1+1 redundant power supply 550W/800W/1300W/1600W/2000W CRPS standard power supply
Management	Integrate an independent 1000Mbps network interface, specially used for IPMI remote management
Physical size	With mounting ears: W (width) 478.8mm; H (height) 87mm; D (depth) 811.7 mm Without mounting ear: W (width) 435mm; H (height) 87mm; D (depth) 780 mm