CSR2-N72R3399

2U ARM Cluster servers

V1.0 2025-2-19

T-CHIP INTELLIGENCE TECHNOLOGY

Product features

High-density and powerful

The server can be equipped with up to 72 pieces of hexa-core 64-bit core board RK3399 , with up to 432 cores of edge computing power and up to 1.8GHz of every core board’s frequency. When fully equipped, it can be 72 real Linux cloud computers or 72 Android cloud phones; and it supports Android virtualization – to virtualize a large number of Android phones.

Flexible hardware configuration

It can be configured with any number and any type of core boards of Firefly JD4 series – customized core boards are also available. AI accelerator module with up to 3TOPS computing power can be equipped in every core board. Two 3.5-inch hard drives are optional for expansion.

Stable and reliable redundant design

The power supply, fan, network and storage modules are all with redundant design, realizing independent watchdog, real-time temperature measurement, automatic troubles hooting, parallel recovery and so on, ensuring stable and reliable operation of the server.

Product features

Safe and high-speed networking

Owning two 10GbE ports, the server can be connected to broadband of two different opera tors. Supporting network isolation, link aggregation, network load balancing and flow control, it ensures the security and reliability of the network communication.

BMC remote management system

With BMC remote management system, it achieves real-time monitoring, software configuration, hardware management, troubleshooting and system upgrade. The system supports customized development.

Standard 2U rack server

With standard 2U rack server chassis design, fully matching most types of cabinets in the data center.

Wide range of application scenarios

It has a lot of usage scenarios – cloud phone, virtual desktop, cloud gaming, cloud storage, block chain, multi-channel video decoding, app cloning and so on.

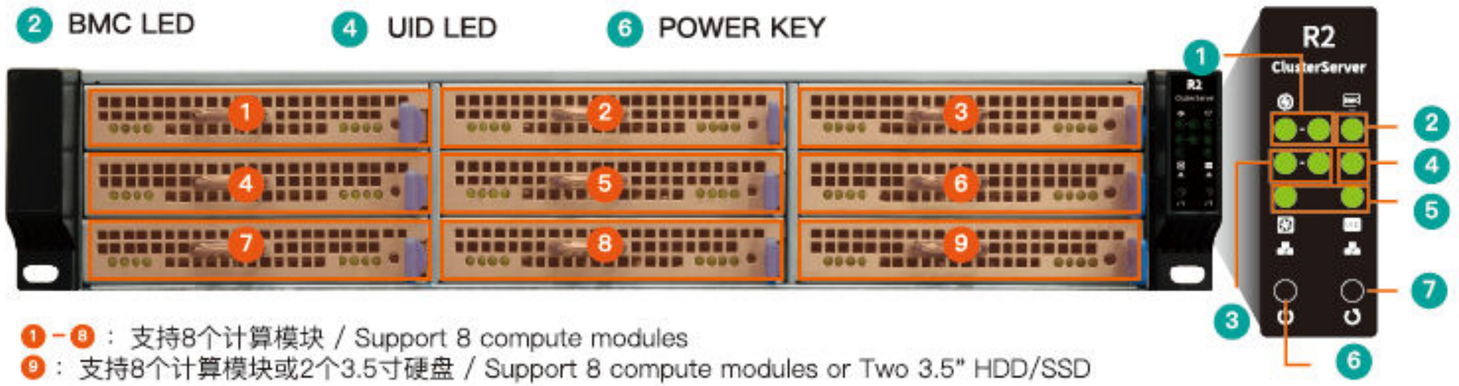
Specifications

Specification		
Basic Specifications	Product name	2U Cluster servers
	Product model	CSR2-N72R3399
	Architecture	ARM architecture
	Number of nodes	9 blade nodes, each configurable with 8 compute modules, and node 9 can also be used to install 2 3.5" SATA/SSD drives (hot-swappable)
	Number of cores	Up to 72 compute modules (432 total ARM cores)
	Core board	RK3399 Core Board (Core-3399-JD4): Hexa-core 64-bit (A72×2 + A53×4) processor, up to 1.8GHz RK3328 Core Board (Core-3328-JD4): Quad-core 64-bit A53 processor, up to 1.5GHz / Support 4K/1080P H.265/ H.264 video hardware codec RK1808(AI) Core Board (Core-1808-JD4): Dual-core 64-bit A35 processor, up to 1.6GHz / Integrated NPU, up to 3TOPS
	CPU	Compute node: RK3399 Hexa-core 64-bit (A72×2 + A53×4) processor, up to 1.8GHz Control node: RK3399 Hexa-core 64-bit (A72×2+A53×4) processor, up to 1.8GHz
	RAM	Supports 4GB DDR3/DDR4/LPDDR4 memory (optional per core board: 1GB/2GB/4GB)
	Storage	Supports 32GB eMMC internal memory (optional per core board: 8GB/16GB/32GB/64GB/128GB) 3.5-inch SATA/SSD drive bay × 2 (Node 9) with hot-swappable support SD card slot × 1
	BMC	Integrated BMC management system, providing a web-based management interface, BMC management system can be redeveloped
	OS	Android, Ubuntu, Linux
	Power module	Dual-channel redundant power supply design: AC 100~240V 50/60Hz, 1300W/800W optional
	Size	Standard 2U Server Chassis: 580.0mm × 434.0mm × 88.8mm
	Environment	Operating Temperature: 0ºC ~ 35ºC, Operating Humidity: 8%~95%RH(non-condensing)
Interface Specifications	Network	It can be connected to multiple operator networks at the same time; Supports internal and external network isolation, physical port binding aggregation, network load balancing, and traffic limiting Dual NIC redundancy design (internal and external network isolation can be realized), single NIC integration: Gigabit Ethernet (RJ45) × 2, 10G Ethernet (SFP+) × 2, BMC × 1, Console (debug serial port) × 1
	Display	1 × Mini HDMI2.0 (4K@60Hz, control motherboard display)
	USB	1 × USB3.0 HOST
	Indicator	Control motherboard working status indicator: 1 single daughter board (node) 1 status indicator for each core board, a total of 8 LED indicators, there are 8 indicators at the armrest, which respectively represent: fan 1, fan 2, switch module 1, switch module 2, UID identification, BMC work indicator, switching power supply 1, switching power supply 2
	Button	Reset × 1, UID button × 1
	Fan module	A total of 2 sets of fan modules: Fan Module 1 (3×2 redundant fan design), Fan Module 2 (2×2 redundant fan design)

Interface description

Front View

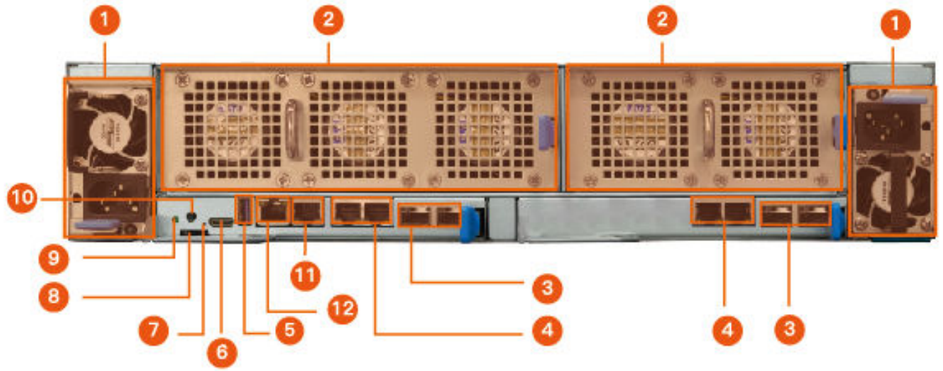
1 POWER LED x2
2 BMC LED
3 FAN LED x2
4 UID LED
5 NET LED x2
6 POWER KEY
7 RESTART KEY



1 – 8 ： 支持8个计算模块 / Support 8 compute modules
9 ： 支持8个计算模块或2个3.5寸硬盘 / Support 8 compute modules or Two 3.5" HDD/SSD

Back View

1 Power Module
2 FAN Module
3 SFP 10GbE
4 RJ45 1GbE
5 USB3.0
6 Mini HDMI
7 RESET KEY
8 SD Card
9 BMC LED
10 UID KEY
11 BMC RJ45
12 Console



Dimension

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