

meta brain[®] server

NF8260G7



Product Overview

The NF8260G7 Intel-based system is a 2U4S rack server powered by the 4th Gen Intel[®] Xeon[®] Scalable processors. It provides high computing performance and large memory capacity for customers with intensive storage and density demands. The server is applicable to high-density scenarios like virtualization, database, SAP HANA, among others.

Applicable Models

Product Model	I/O	Cooling
NF8260M7-A0-R0-00	Rear I/O	Air cooling
NF8260M7-A0-F0-00	Front I/O	Air cooling

Product Features

High-Density Computing and High Efficiency

- With two or four 4th Gen Intel[®] Xeon[®] Scalable processors in a 2U space, the server supports up to 60 cores and 120 threads per CPU, up to 350W TDP, and 3 Ultra Path Interconnect (UPI) links per CPU at up to 16GT/s per link, significantly improving its cost performance in virtualization scenarios.
- It supports 64 DDR5 ECC DIMMs (4,800MT/s, RDIMMs), delivering superior speed, high availability, and a memory capacity of up to 16TB.
- The all-flash configuration of 24 NVMe SSDs provides a high IOPS ten times higher than that of high-end enterprise-level SATA SSDs, boosting the storage performance.

Flexible Configuration and Ultimate Scalability

- Supports a variety of flexible drive configuration solutions, providing elastic, scalable storage capacity to meet different storage capacity requirements and upgrade requirements. It supports up to 24 front 2.5-inch SAS/SATA/NVMe drives or 21 front 2.5-inch SAS/SATA drives and 4 front 2.5-inch SAS/SATA/NVMe drives, and supports 8 directly-connected SATA drives onboard. It supports 2 internal M.2 SSDs and 2 rear 7mm drives.
- Supports 4 PCIe expansion slots onboard and 5 PCIe expansion slots through riser cards, as well as 2 dual-slot GPUs or 4 single-slot GPUs.
- Supports 2 hot-swap OCP 3.0 slots that can flexibly support 1/10/25/100/200Gb OCP 3.0 cards (multi-host); the OCP 3.0 cards can connect to 4 CPUs at the same time, improving the performance by 20%.
- The front I/O design enables O&M personnel to operate in the cold aisle, which simplifies O&M operations, prolongs the lifecycle of thermo-sensitive components such as optical modules and smart NICs, and improves data stability.

Security, Reliability and Simplified O&M

- Supports hot-swap SAS/SATA/NVMe drives. With RAID cache and data protection enabled by the super-capacitor in case of power failures, SAS/SATA drives can be configured to RAID 0/1/1E/10/5/50/6/60 depending on the RAID card in use.
- Provides a recoverable mechanism for firmware codes and core data. The redundancy design of core components, such as the BIOS and BMC, ensures that the system can start by switching to the standby flash in case of failures. It also supports the online upgrade of the BMC without suspending services, thus guaranteeing service continuity.
- The memory error correction and isolation mechanism enables you to find and shield the faulty memory unit, if any, before starting the system to prevent potential operating problems. In addition, this mechanism allows you to monitor the memory status in real time when the system is operating and find and isolate the faulty memory unit in a timely manner to guarantee the stable operation of the system.
- The UID and status LEDs for fault diagnosis on the front panel, the Bluetooth LCD module, and the ISBMC Web GUI indicate the statuses of key components and quickly lead engineers to failed (or failing) components, simplifying maintenance, speeding up troubleshooting, and enhancing system availability.
- Provides 2 hot-swap PSUs with 1+1 redundancy; provides 6 hot-swap fan modules with N+1 redundancy to improve overall system availability.

High Efficiency, Carbon Emission Reduction, and Low Power Consumption

- The low-voltage 4th Gen Intel® Xeon® Scalable processor (Sapphire Rapids) consumes less power and meets the demands of data centers and telecommunications environments constrained by power and thermal limits.
- The fully-optimized cooling design (including energy-efficient cooling fans) supports Proportional-Integral-Derivative (PID) intelligent fan speed control and CPU frequency scaling to conserve energy.
- Equipped with 80 Plus Platinum/Titanium PSUs of different energy efficiency levels, with power efficiency up to 96% at a load of 50%.

Product Specifications

Item	Description	
Form Factor	2U rack server	
Processor	Supports two or four 4 th Intel® Xeon® Scalable processors, with up to 60 cores and 120 threads per CPU, up to 350W TDP, and 3 UPI links per CPU at up to 16GT/s per link	
Chipset	Intel C621A	
Memory	64 DDR5 DIMMs (4,800MHz at 1 DPC, 4,400MHz at 2 DPC, RDIMMs/3DS-RDIMMs)	
Storage	Standard configuration	Front I/O configuration
	Front: 24 × 2.5-inch SAS/SATA/NVMe drives, 24 × E3.S NVMe SSD, 25 × 2.5-inch SAS/SATA drives or 21 × 2.5-inch SAS/SATA drives + 4 × 2.5-inch SAS/SATA/NVMe drives Supports 8 directly-connected SATA drives onboard	Front: 8 × 2.5-inch SAS/SATA/NVMe drives
	Supports 2 internal M.2 SSDs configured through an M.2 adapter, 2 rear 7 mm SAS/SATA/NVMe drives and 3 TF cards	
Storage Controller	RAID/SAS controller Supports hot-swap SAS/SATA/NVMe drives.	
Network	Supports 2 hot-swap OCP 3.0 slots with NC-SI function; supports 1 multi-host OCP 3.0 card; the OCP 3.0 cards can connect to 4 CPUs at the same time, improving the performance by 20%	
I/O Expansion Slot	Supports 4 PCIe expansion slots onboard and 5 PCIe expansion slots through riser cards, as well as 2 dual-slot GPUs or 4 single-slot GPUs	Front: 6 PCIe expansion slots
		Rear: 4 PCIe expansion slots onboard and 2 OCP 3.0 slots
Port	Front: 1 × USB 2.0 port, 1 × USB 3.0 port, 1 × DB15 VGA port, 1 × USB type-C port	Front: 1 × USB 2.0 port, 1 × USB 3.0 port, 1 × DB15 VGA port, 1 × USB type-C port
	Internal: 2 × USB 2.0 port	Internal: 1 × USB 2.0 port
	Rear: 2 × USB 3.0 port, 1 × DB15 VGA port, 1 × system & BMC serial port, 1 × RJ45 management network port	Rear: 2 × USB 3.0 port, 1 × DB15 VGA port, 1 × system & BMC serial port
Fan	Provides 6 hot-swap fan modules with N+1 redundancy	
Power Supply	Supports 1+1 redundant 80 Plus Platinum/Titanium CRPS PSUs with the output power of 800W/1,300W/1,600W/2,000W/2700W (options: -48 Vdc, 220 Vac/240 Vdc, and 220 Vac/240 Vdc/336 Vdc)	
Management and Security	Supports AST2600 BMC chip; IPMI; Redfish; TPM 2.0/TCM; Intel platform firmware recovery function (PFR); Intel SGX; Smart PPR and Intel MFP for memory failure alarm and recovery; BMC/BIOS dual-chip redundancy;	
Operating System	Microsoft Windows Server, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, etc.	
Dimensions (W × H × D)	435mm × 87mm × 841mm (without mounting ears)	
Weight	Full configuration: ≤32.6kg (For details, refer to the White Paper)	
Operating Temperature	5°C to 45°C (For details, refer to the White Paper)	