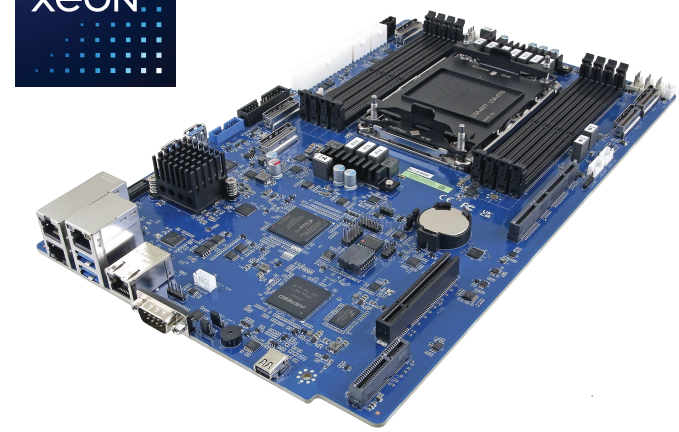
HIGH PERFORMANCE MOTHERBOARDS

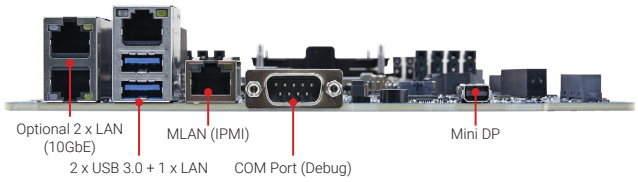
HPM-GNR1U

High-performance motherboard for 1U Rackmount System

Key Features

- Supports single 6th Gen Intel® Xeon® Scalable Processor up to 350W TDP LGA4710 Socket
- 8 x DDR5 6400MT/s RDIMM and 8000MT/s MRDIMM Up to 2TB
- IPMI 2.0, TPM 2.0
- 1 x PCIe Gen5 x32 Riser Slot, 1 x PCIe Gen5 x8 Riser Slot
- 5 x MCIO 8i Connectors with Hot-Swappable Support
- 1 x MiniDP, 1 x COM, 2 x USB 3.2 Gen1 ports at Edge I/O
- 4 LAN Ports: MLAN, 1 x GbE, 2 x 10GbE
- Intel® Ethernet Controller E610-XAT2 (10GbE)
- 13” x8” (330.2mm x 203.2mm), PCB thickness is 2.79 mm





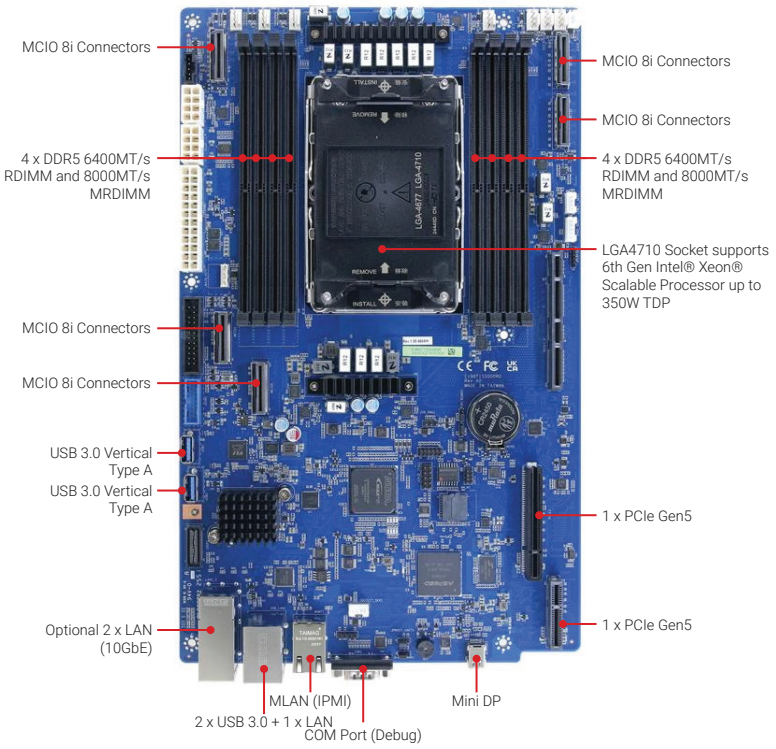
Product Specifications

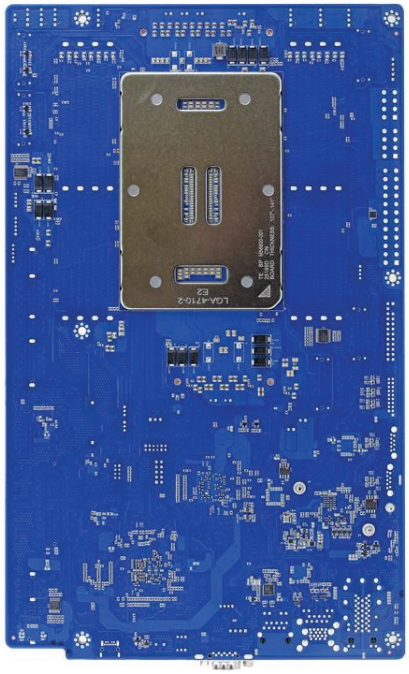
System	
Processor	1 x LGA4710 socket supports 6th Gen Intel® Xeon® 6500P/6700P/6700E series Processor, up to 350W TDP
Memory	8 x DDR5 6400 MHz RDIMM & 8000 MHz MRDIMM Up to 2TB
BIOS	AMI® UEFI BIOS
TPM	TPM 2.0
H/W Monitor	CPU Temperature Fan Speed and Voltage Monitoring Fan Speed Control Case Open Detection
Watchdog Timer	System Reset Event. 0 ~ 6553 seconds.
IPMI/Graphics	
Controller	AST2600 Series BMC Controller
Interface	1 x Mini-DisplayPort 1
Resolution	920x1200@60Hz 32bpp
IPMI	IPMI 2.0
Ethernet	
Controller	1 x Intel® I210-AT Ethernet Controller (1GbE) shared IPMI management port 1 x Intel® E610-XAT2 Ethernet Controller supports 2-Ports (10GbE each LAN port)
Interface	4 x RJ45 includes: 1 x MGMT port for dedicated IPMI access only 1 x 1GbE port shared with IPMI access 2 x 10GbE ports
Expansion Interfaces	
PCI Express	1 x PCIe Gen5 x32 Riser Slot 1 x PCIe Gen5 x8 Riser Slot
MCIO	5 x MCIO 8i Connectors with Hot-Swappable Support (PCIe Gen5)

Supported OS	
Windows	Windows 11 SAC and LTSC Windows Server 2025
Linux	Ubuntu 24.04 LTS or later Red Hat Enterprise Linux (RHEL)
External I/O Ports	
Display	1 x MiniDP Connector
USB	2 x USB 3.2 Gen1 ports
LAN	4 x RJ45 includes: 1 x RJ-45 1GbE Ethernet Connector Shared with IPMI 1 x RJ-45 Connector for Console 2 x RJ-45 Connectors for 10GbE
COM Port	1 x COM Port
Internal I/O Connectors	
USB	2 x Internal USB 3.2 Gen1 ports 1 x Internal USB 3.2 Gen1 type A receptacle 1 x Internal USB 2.0 ports
CMOS Battery	1 x Horizontal Socket Type CMOS Battery Holder with CR2450
Regulatory Compliance Design to Comply	
Design to Comply with	CE/FCC
Mechanical, Power, and Environment	
Operating Temperature	0 ~ 55°C (32 ~ 131°F)to support up to 350W TDP CPU 0 ~ 55°C (32 ~ 131°F)to support up to 270W TDP CPU
Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing
Dimensions	13” x 8” (330.2mm x 203.2mm), PCB thickness is 2.79 mm

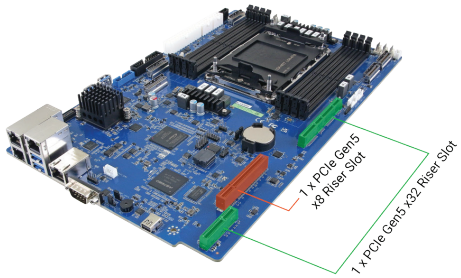
* All product specifications and images are subject to change without notice. Last update: 06/11/2026

Product Photo





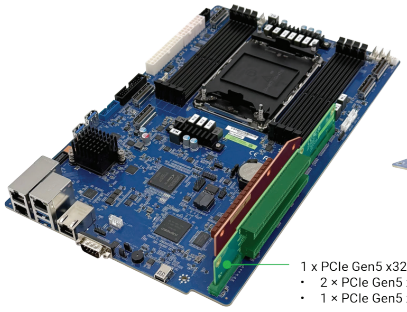
Bottom View

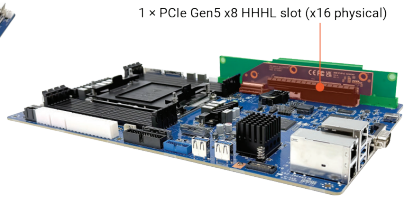


AUX-HPS-FH-A0R

Full Height Full Length 1U PCIe x32 Dual PCIe x16 Slot Riser Card



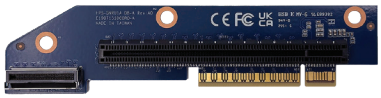




1 x PCIe Gen5 x32 Riser Slot supports:
- 2 × PCIe Gen5 x16 FHFL single-width slots, or
- 1 × PCIe Gen5 x16 FHFL double-width slot

AUX-HPS-LP-A0R

Half Height Half Length 1U PCIe x8 Riser Card in x16 Physical Slot with MCIO 8i





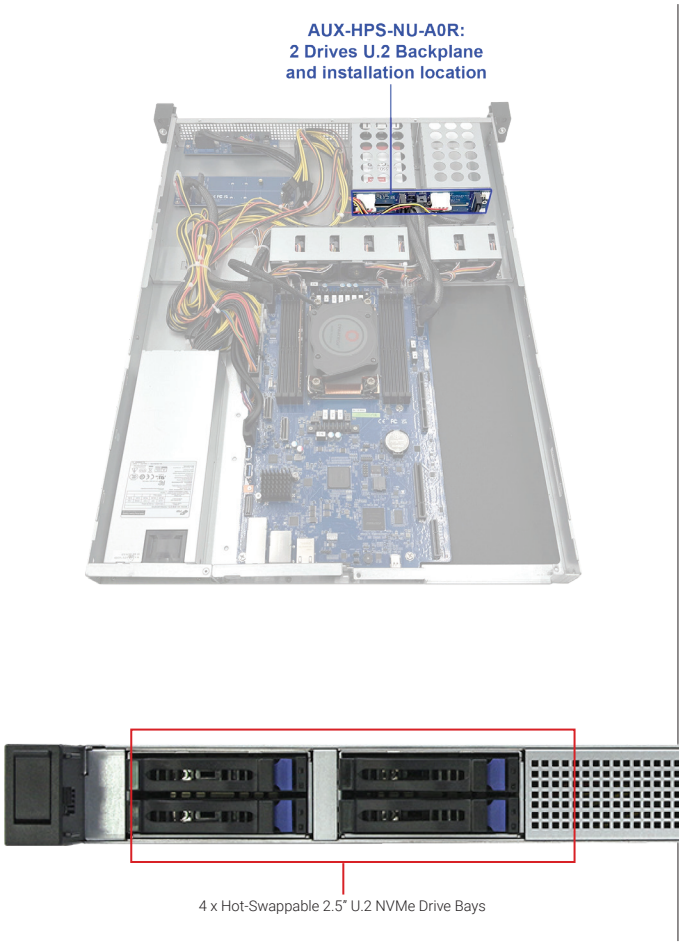
Ultra-low profile design — motherboard with riser card height of approximately 1.57" (4cm), optimized for dense 1U server chassis.

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Product Photo

Modular Storage Building Blocks for Custom 1U Chassis Integration

To provide System Integrators (SIs) with maximum design flexibility, BCM offers dedicated, optional storage expansion backplane kits. These modular kits are engineered to seamlessly pair the HPM-GNR1U motherboard with proprietary or third-party 1U server enclosures, enabling rapid deployment of high-performance NVMe storage arrays without custom engineering overhead.





Ordering Information

Part No.	Description
HPM-GNR1U	LGA 4710 supports single Intel® 6th Gen. Xeon® Scalable Processors. 16 x DDR5 up to 4TB, 1 x Gbit LAN, 1 x 2.5Gbit LAN, 5 x PCIe 5.0x16, 1 x PCIe 5.0x8, 4 x USB 3.2, 5 x SATA III, EATX, 2 x 10Gbit Ethernet ports
AUX-HPS-FH-A0R	Full Height Full Length 1U PCIe x32 Dual PCIe x16 Slot Riser Card
AUX-HPS-LP-A0R	Half Height Half Length 1U PCIe x8 Riser Card in x16 Physical Slot with MCIO 8i
AUX-HPS-ES-A0R	10 Drives E1.S Backplane
AUX-HPS-NU-A0R	2 Drives U.2 Backplane

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