



HPM-GNRDE

High-performance Server Class EATX Motherboard supports
Dual 6th Gen Intel® Xeon 6500P & 6700P Series Processor



Dual Sockets
2 x Intel Xeon



IPMI 2.0



6 x PCIe Gen5
x16/x8



16 x DDR5
RDIMM/MRDIMM



4 LAN/
2 LAN

Features

- Extended Lifecycle
- 2 x LGA4710 sockets support two 6th Gen Intel® Xeon® 6500P & 6700P series Processor (formerly Granite Rapids) up to 350W TDP
- 16 x DIMM slots support DDR5 6400MT/s RDIMM and 8000MT/s MRDIMM up to 4TB
- 5 x PCIe Gen5 x16 and 1 x PCIe Gen5 x8
- IPMI 2.0 supported by AST 2600 BMC controller onboard
- TPM 2.0 onboard
- 2 x Intel® Ethernet Controller I210-AT (1GbE)
- Optional 1 x Intel® E610-XAT2 Ethernet Controller (10GbE) supports dual ports (2 x RJ-45)
- 1 x M.2 M-Key socket supports PCIe 5.0 x4 NVMe SSD, 2242/2260/2280/22110 form factor
- 1 x M.2 M-Key socket supports PCIe 5.0 x4 NVMe SSD, 2242/2260/2280 form factor
- 1 x RS-232 port, 6 x USB 3.2 Gen2 ports at Edge I/O
- 9 x SATA III: 2 x MiniSAS HD 4i (for 4 x SATA Only) & 1 x 7 pin SATA connector
- 4 x Slim SAS 8i Connectors
- 3 x MCIO x8 Connectors
- 2.8mm PCB Thickness

SPECIFICATIONS

System

Processor	2 x LGA4710 sockets support two 6th Gen Intel® Xeon® Scalable Processors up to 350W TDP each Intel® Xeon® 6740P Processor, 288M Cache, 2.10 GHz Intel® Xeon® 6781P Processor, 336M Cache, 2.00 GHz Intel® Xeon® 6530P Processor, 144M Cache, 2.30 GHz Intel® Xeon® 6520P Processor, 144M Cache, 2.40 GHz Intel® Xeon® 6731P Processor, 144M Cache, 2.50 GHz Intel® Xeon® 6521P Processor, 144M Cache, 2.60 GHz Intel® Xeon® 6736P Processor, 144M Cache, 2.00 GHz Intel® Xeon® 6517P Processor, 72M Cache, 3.20 GHz Intel® Xeon® 6515P Processor, 72M Cache, 2.30 GHz Intel® Xeon® 6505P Processor, 48M Cache, 2.20 GHz
Memory	16 x DIMM slots support DDR5 6400MT/s RDIMM and 8000MT/s MRDIMM up to 4TB
BIOS	AMI® UEFI BIOS
TPM	TPM 2.0 onboard
H/W Monitor	CPU Temperature Fan Speed and Voltage Monitoring Fan Speed Control Case Open Detection
Watchdog Timer	System Reset Event. 0 ~ 6553 seconds.

Expansion Interfaces

PCI Express	5 x PCIe Gen5 x16 slots and 1 x PCIe Gen5 x8 slot: Slot 1, PCIe Gen5 x16 from 1st CPU Slot 2, PCIe Gen5 x16 from 2nd CPU Slot 3, PCIe Gen5 x16 from 1st CPU Slot 4, PCIe Gen5 x16 from 2nd CPU Slot 5, PCIe Gen5 x16 from 2nd CPU Slot 6, PCIe Gen5 x8 from 2nd CPU
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Storage Connectors

M.2	1 x M.2 M-Key socket supports 1 x Gen5 PCIe x4 NVMe SSD 2242/2260/2280/22110 form factor 1 x M.2 M-Key socket supports 1 x Gen5 PCIe x4 NVMe SSD 2242/2260/2280 form factor
SATA	9 x SATA III: 2 x Mini-SAS HD 4i (for 4 x SATA) 1 x 7-pin SATA connector
PCIe	4 x Slim SAS 8i (SFF-8654) connectors (from 1st CPU) 3 x MCIO x8 connectors (SFF-TA-1016) (from 2nd CPU)

IPMI/Graphics

Controller	AST2600 Series BMC Controller
Interface	1 x VGA
Resolution	1920 x 1200 @ 60Hz 32bpp
IPMI	IPMI 2.0

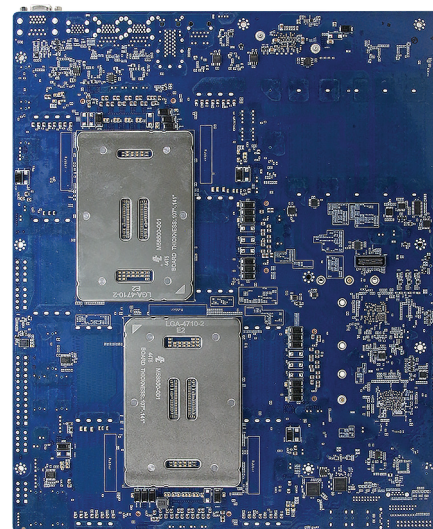
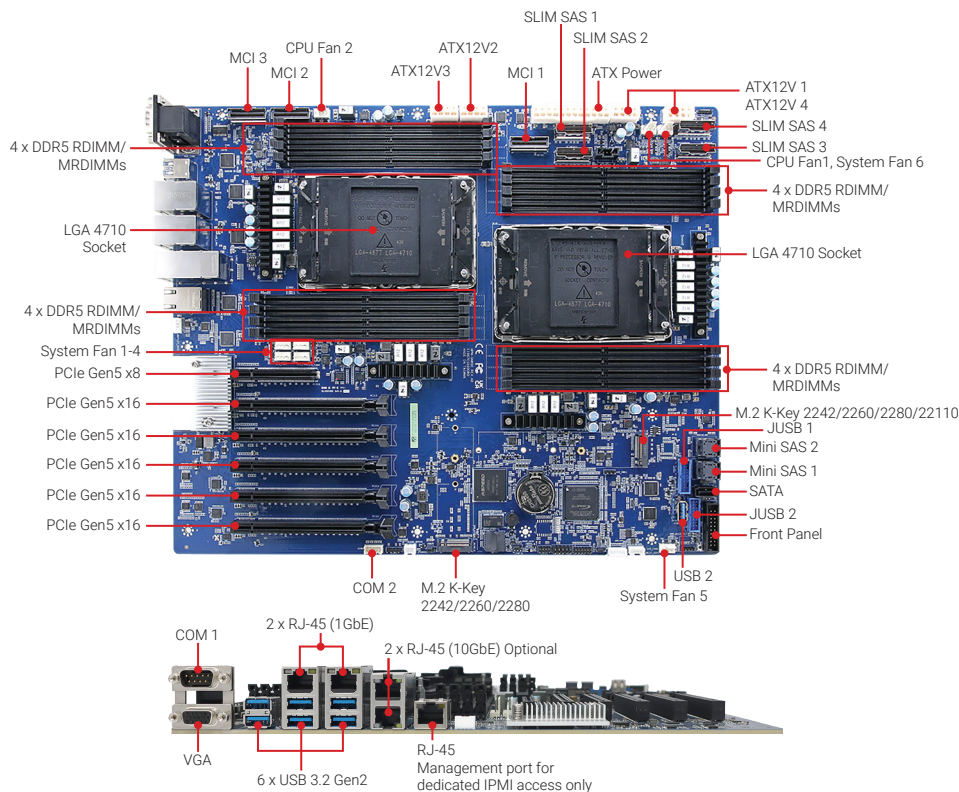
Ethernet

Controller	LAN 1: 1 x Intel® Ethernet Controller I210-AT (1GbE) (Shared IPMI management port) LAN 2: 1 x Intel® Ethernet Controller I210-AT (1GbE) LAN 3 and LAN 4: 1 x Intel® Ethernet Controller E610-XAT2 supports 2-Ports (10GbE each LAN port)
Interface	4 x RJ-45

Supported OS

Windows	Windows 11 SAC and LTSC Windows Server 2025
Linux	Ubuntu Red Hat Enterprise Linux (RHEL)

SPECIFICATIONS / ADDITIONAL PRODUCT PHOTOS



External I/O Ports

USB	6 x USB 3.2 Gen2 Type A Connectors
COM	1 x RS-232
VGA	1 x VGA
LAN	5 x RJ-45 LAN Ports: 1 x RJ-45 for Dedicated IPMI management port 1 x RJ-45 (1GbE) Shared IPMI management port 1 x RJ-45 (1GbE) 2 x RJ-45 (10GbE) (Optional)

Internal I/O Connectors

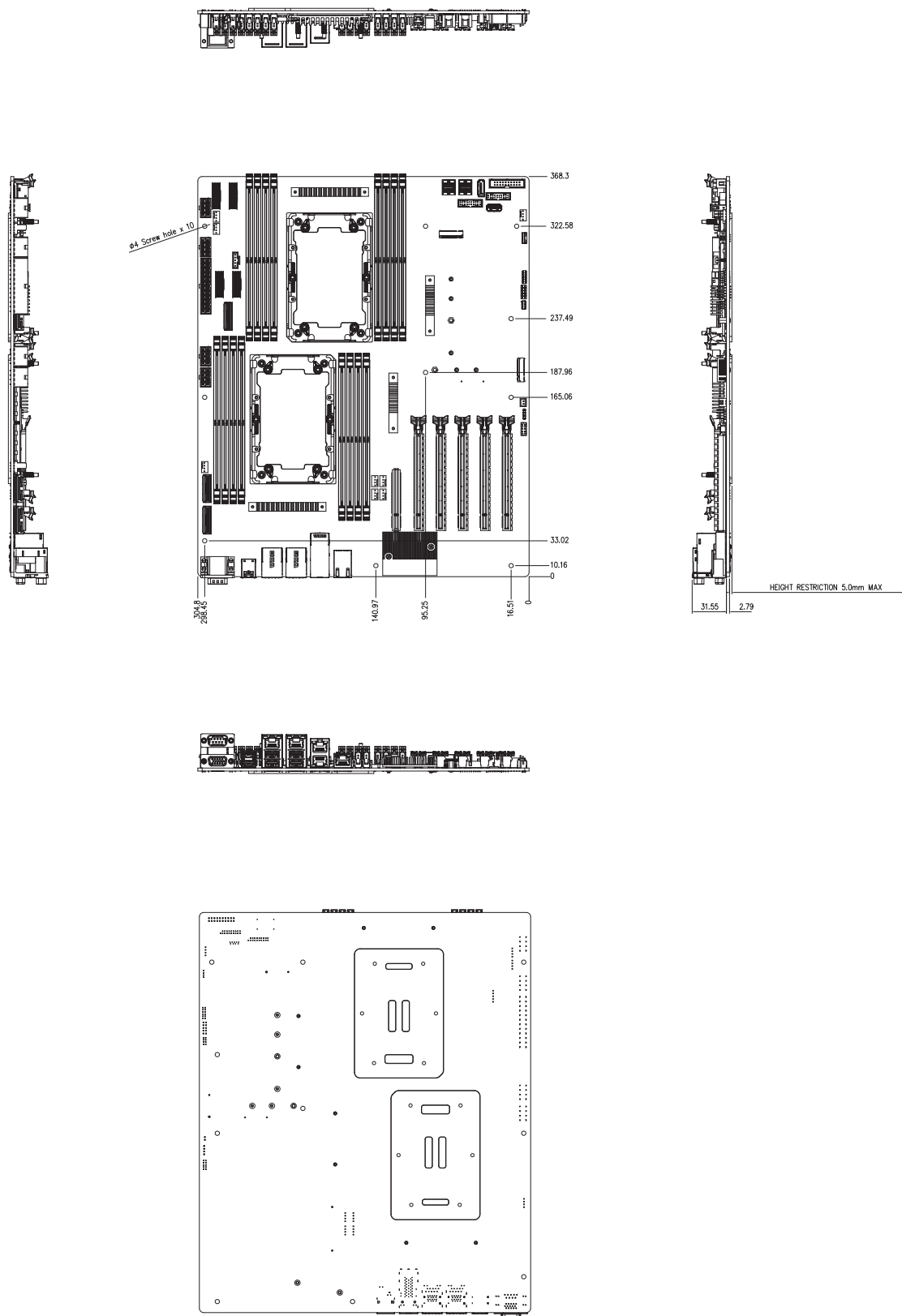
VROC	1 x Intel® VROC Header
USB	1 x USB 3.2 Gen2 Header (2 Ports) 1 x USB 3.2 Gen1 Header (2 Ports) 1 x USB 3.2 Gen1 Type A Receptacle
COM	1 x RS-232 Header
Fan	2 x 4-Pin CPU Fan Headers 6 x 4-Pin Chassis Fan Headers
Front Panel	1 x Front Panel Header
Buzzer	1 x Onboard Buzzer
Clear CMOS	1 x Clear CMOS Header (2.0mm pitch Header)
CMOS Battery	1 x Horizontal Socket Type CMOS Battery Holder with CR2450
Temperature Sensor	1 x Inlet Sensor Onboard 1 x Outlet Sensor Onboard 1 x Inlet Sensor Header 1 x Outlet Sensor Header

Mechanical, Power, and Environment

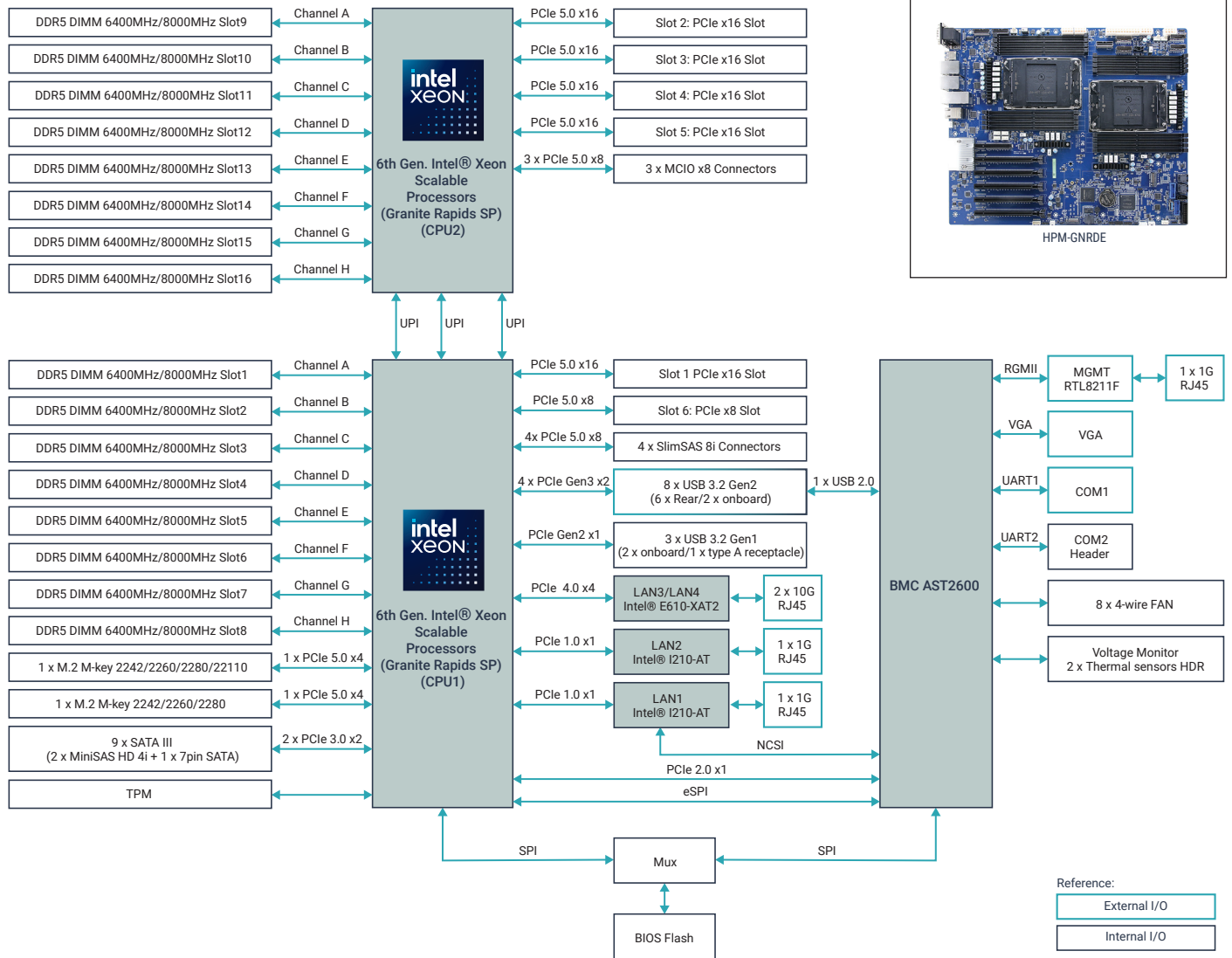
Power & Connector	1 x Standard 24-Pin ATX Connector 4 x 8-Pin SSI ATX12V Connectors
Operating Temp	With Intel® E610 Ethernet Controller: 0°C ~ 55°C (32°F ~ 131°F) Without Intel® E610 Ethernet Controller: 0°C ~ 60°C (32°F ~ 140°F)
Storage Temp	-40°C ~ 85°C (-40°F ~ 185°F)
OP Humidity	40°C 95% non-condensing
Dimensions	12" x 14" (304.8 mm x 354.94mm) 2.8mm PCB Thickness
Form Factor	EATX
Weight	4.85lbs (2.2 kg)

Regulatory Compliance (Design to Comply)

EMC Certification (EMI+EMS)	2014/30/EU EMC EN55032+55035 Class B
EMI Certification	FCC part 15B Federal Communication Commission Class B
Safety Certification	2014/35/EU LVD EN 62368-1 Low Voltage Directive
Environmental Standards	RoHS (2011/65/EU) Battery (2006/66/EC) Package (2013/2/EU) PFOS (2006/122/EC) REACH (EC No. 1907/2006)



BLOCK DIAGRAM



ORDERING INFORMATION

Model Name	CPU/CPU Socket	Description
HPM-GNRDEA	2 x LGA4710 Sockets	4 LAN Ports (2 x 1GbE + 2 x 10GbE)
HPM-GNRDEL	2 x LGA4710 Sockets	2 LAN Ports (2 x 1GbE)

PACKING LIST

- ✓ 1 x Motherboard
- ✓ 1 x I/O Shield



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