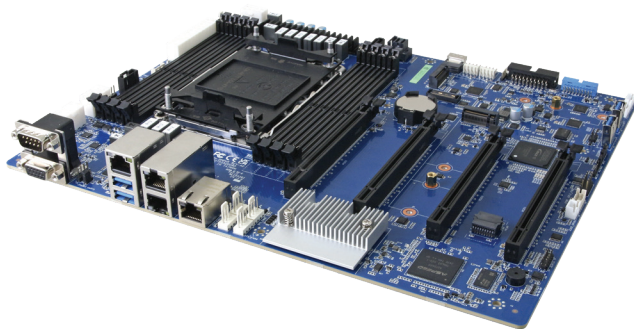


HPM-GNRUA

High-performance Server Class ATX Motherboard supports
6th Gen Intel® Xeon Scalable Processors up to 350W TDP



Single Socket



IPMI 2.0



4 x PCIe Gen5

8 x DDR5
RDIMM/MRDIMM

4 LAN

Features

- Extended Lifecycle
- 1 x LGA 4710 socket supports 6th Gen Intel® Xeon® Scalable Processors up to 350W TDP (formerly Granite Rapids)
- 8 x DIMM slots support DDR5 6400MT/s RDIMM and 8000MT/s MRDIMM up to 2TB
- 4 x PCIe Gen5 x16
- IPMI 2.0 supported by AST 2600 BMC controller onboard
- 1 x VGA supports 1920x1200
- TPM 2.0 onboard
- 1 x Intel® Ethernet Controller I210-AT (1GbE)
- 1 x Intel® Ethernet Controller E610-XAT2 (2 x 10GbE)
- 2 x M.2 M-Key sockets support PCIe Gen5 x4 NVMe SSD, 2242/2260/2280/22110 form factor
- 2 x COM Ports
- 1 x Slim SAS 4i Connector
- 1 x Mini-SAS HD 4i Connector
- ATX Form Factor (12"x9.6")

SPECIFICATIONS

System	
Processor	1 x LGA4710 socket supports 6th Gen Intel® Xeon® Scalable Processors up to 350W TDP 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	8 x DIMM slots support DDR5 6400MT/s RDIMM and 8000MT/s MRDIMM up to 2TB
BIOS	AMI® UEFI BIOS
TPM	TPM 2.0 onboard
Watchdog Timer	System Reset Event. 0 ~ 6553 seconds.
H/W Monitor	CPU Temperature, Fan Speed and Voltage Monitoring, Case Open Detection
RAID	Intel® VMD and Virtual RAID on CPU (VROC)
Storage Connectors	
M.2	2 x M.2 M-Key sockets support 1 x PCIe Gen5 x4 NVMe SSD 2242/2260/2280/22110 form factor
SATA	1 x Mini-SAS HD 4i (for 4 x SATA only) 1 x 7-pin SATA connector (6.0 Gb/s) 1 x Jmicro JMB585-QHBA0A 5x SATA III 6.0 Gb/s
PCIe	1 x Slim SAS 4i (SFF-8654) connector
Ethernet	
Controller	1 x Intel® Ethernet Controller I210-AT (1 x 1GbE) 1 x Intel® Ethernet Controller E610-XAT2 (2 x 10GbE)
Interface	4 x RJ-45

Expansion Interfaces

PCI Express 4 x PCIe Gen5 x16 Slots

IPMI/Graphics

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

External I/O Ports

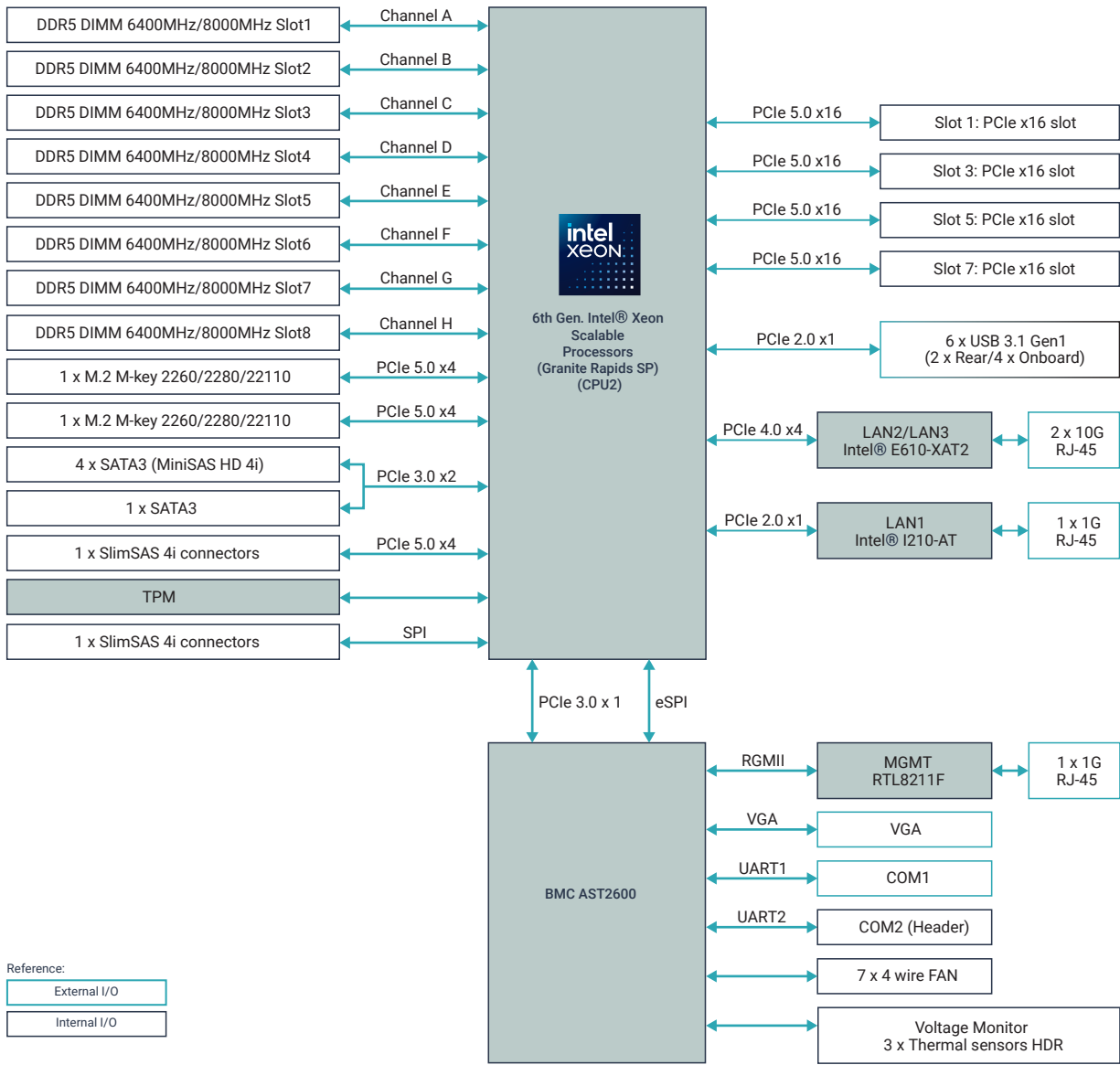
USB	2 x USB 3.1 Gen1 Type A Connectors
COM	1 x DB-9 COM Port
VGA	1 x VGA
LAN	4 x RJ-45 LAN Ports: 1 x RJ-45 for Dedicated IPMI management port 1 x RJ-45 (1GbE) 2 x RJ-45 (10GbE)

Internal I/O Connectors

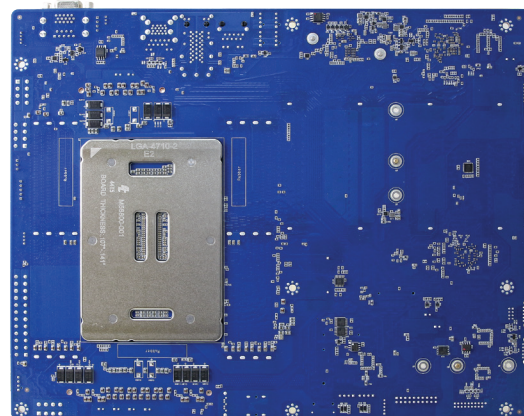
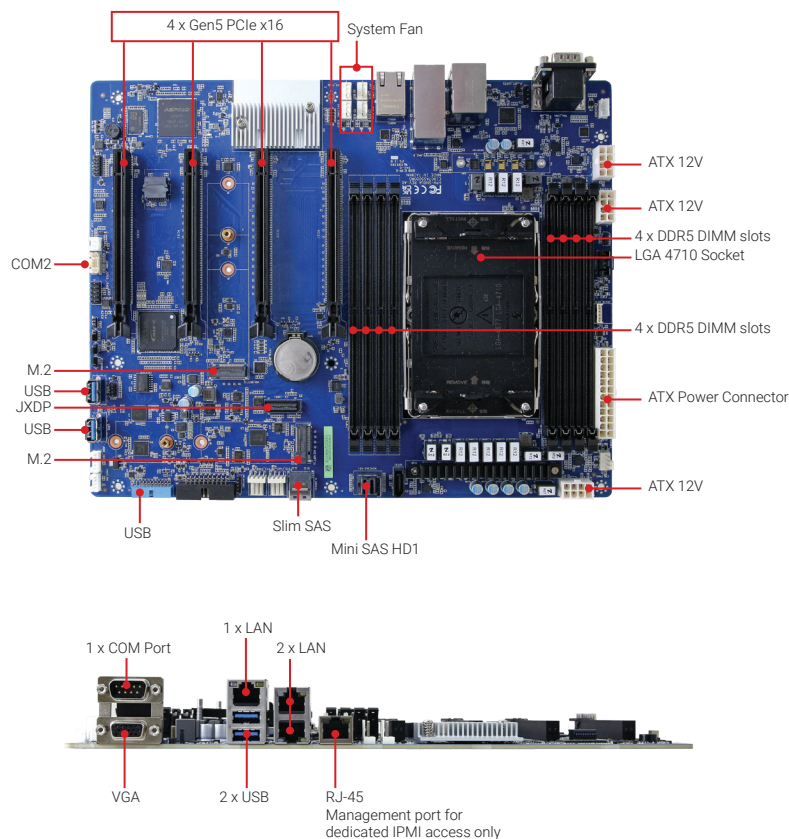
VROC	1 x Intel® VROC Header
USB	4 x USB 3.1 Gen2 1 x USB Hub to 4 x USB
COM	1 x RS-232 Header
Fan	2 x 4-Pin CPU Fan Headers and 6 x 4-Pin Chassis Fan Headers
Front Panel	1 x Front Panel Header
Buzzer	1 x Onboard Buzzer
Clear CMOS	1 x Clear CMOS Header (2.0mm pitch Header)
CMOS Battery	1 x Horizontal Socket Type CMOS Battery Holder with CR2450
Temperature Sensor	1 x Inlet Sensor, 1 x Outlet Sensor, 1 x Inlet Sensor Header, 1 x Outlet Sensor Header



BLOCK DIAGRAM



SPECIFICATIONS / ADDITIONAL PRODUCT PHOTOS



Mechanical, Power, and Environment

Power & Connector	1 x Standard 24-Pin ATX Controller 3-4 x 8-Pin SSI ATX12V Connectors
Power Mode	H/W: ATX BMC: AT (Default)
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 9.6" (304.8mm x 243.84mm)
Form Factor	ATX
Weight	2.65lbs (1.19 kg)

Regulatory Compliance (Design to Comply)

EMC (EMI+EMS)	2014/30/EU EMC EN55032+55035 Class B
EMI Certification	FCC part 15B Federal Communication Commission Class B UKCA - United Kingdom EMI
Safety Certification	2014/35/EU LVD EN 62368-1 Low Voltage Directive
Environmental Std.	RoHS

Supported OS

Windows	Windows 10 IoT Enterprise LTSC 2021 Windows 11 Windows Server IoT 2019 with VT-d disabled Windows Server IoT 2022
Linux	Red Hat Enterprise Linux (RHEL) 8.2 and later

ORDERING INFORMATION

Model Name	CPU/CPU Socket	Description
HPM-GNRUA	1 x LGA4710 Socket	4 LAN Ports - 1 x MLAN, 1 x 1GbE, 2 x 10GbE

PACKING LIST

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

intel
partner
Titanium



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Your Go-To Partner for Industrial Computing Design



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