

# HPM-SRSUA

Single 4th Generation Intel®Xeon® Scalable Processor  
ATX Server Board with Intel® C741 Chipset and IPMI2.0.  
Processor supports up to 270W TDP



## Features

- Intel LGA4677 Socket supports 4th Generation Intel® Xeon® Scalable Processor (Max. TDP at 270W)
- Intel® C741 Chipset
- 6 x DDR5 4800/ 4400 MHz RDIMM up to 1.5TB
- TPM 2.0 onboard
- IPMI 2.0 with AST 2600 BMC controller onboard
- 1 x Intel I210AT 1GbE controller  
1 x Intel I226-LM 2.5GbE controller  
1 x Intel X550AT2 10GbE controller supports 2 x 10GbE Ethernet ports
- 5 x SATA III Support RAID 0,1,5,10
- 1 x RS232 port, 4 x Internal USB 3.2 Gen1 ports
- 4 x USB 3.2 Gen1 ports & 2 x USB 2.0 ports at Edge I/O
- 1 x M.2 M-Key PCIe 3.0 x4 NVMe SSD, 2242/2260/2280/22110 form factor



4th Gen.  
Intel®Xeon®  
Scalable  
Processor



6 x DDR5  
RDIMM  
4800/4400MHz



IPMI 2.0  
supported



10GbE



PCIe Gen5  
multiple  
expansion

## Specifications

### System Information

|                         |   |
|-------------------------|---|
| Processor               | Intel LGA4677 Socket supports 4th Generation Intel® Xeon® Scalable Processor (Max. TDP at 270W) |
| Platform Controller Hub | Intel® C741 Chipset   |
| System Memory           | 6 x DDR5 4800/ 4400 MHz RDIMM up to 1.5TB   |
| Watchdog Timer          | System reset event 0 ~ 6553 seconds   |
| BIOS                    | AMI UEFI BIOS   |
| H/W Status Monitor      | CPU temperature<br>Fan speed and voltage monitoring<br>Fan speed control<br>Case open detection |
| TPM                     | TPM 2.0 onboard   |
| IPMI                    | IPMI 2.0 with AST 2600 BMC controller onboard   |

### Rear I/O

|          |  |
|----------|--|
| USB      | 4 x USB 3.2 Gen1 ports<br>2 x USB 2.0 ports  |
| COM Port | 1 x RS232 port   |
| RJ-45    | 5 x RJ45<br>MGMT port for dedicated IPMI access only<br>LAN1 port for 1GbE shared with IPMI access<br>LAN2 port for 2.5GbE<br>LAN3 and 4 ports for 10GbE |
| VGA      | 1 x VGA port   |

### Display

|                 |   |
|-----------------|---|
| Graphic Chipset | AST2600 BMC controller                        |
| Resolution      | 1 x VGA port<br>VGA: 1920 x 1200 @ 60Hz 32bpp |

### Expansion

|           |   |
|-----------|---|
| Expansion | 4 x PCIe Gen5 x16 slots and 3 x PCIe Gen5 x4 slots<br>Slot 1, PCIe 5.0 x16<br>Slot 2, PCIe 5.0 x4<br>Slot 3, PCIe 5.0 x16<br>Slot 4, PCIe 5.0 x4<br>Slot 5, PCIe 5.0 x16<br>Slot 6, PCIe 5.0 x4<br>Slot 7, PCIe 5.0 x16 (Slot 7 is the slot closest to CPU) |
|-----------|---|

### Storage

|     |  |
|-----|--|
| M.2 | 1 x M.2 M-Key PCIe 3.0 x4 NVMe SSD, 2242/2260/2280/22110 form factor |
|-----|--|

### I/O

|              |  |
|--------------|--|
| USB          | 4 x Internal USB 3.2 Gen1 ports                            |
| SATA         | 5 x SATA III<br>(Note:SATA 1~4 support RAID 0,1,5,10)      |
| Serial       | 1 x Internal RS232 port                                    |
| CMOS Battery | 1 x Horizontal Socket Type CMOS Battery Holder with CR2450 |

### Ethernet

|             |  |
|-------------|--|
| LAN Chipset | 1 x Intel I210AT 1GbE controller<br>1 x Intel I226-LM 2.5GbE controller<br>1 x Intel X550AT2 10GbE controller supports 2 x 10GbE Ethernet ports          |
| LAN Port    | 5 x RJ45<br>MGMT port for dedicated IPMI access only<br>LAN1 port for 1GbE shared with IPMI access<br>LAN2 port for 2.5GbE<br>LAN3 and 4 ports for 10GbE |

### Mechanical & Environmental

|                    |  |
|--------------------|--|
| Operating Temp.    | 0 ~ 60°C (32 ~ 140°F) to support up to 250W TDP CPU<br>0 ~ 50°C (32 ~ 122°F) to support up to 270W TDP CPU |
| Storage Temp.      | -40 ~ 85°C   |
| Operating Humidity | 40°C @95% Relative Humidity, Non-condensing  |
| Weight             | 1.19KG   |
| Power Connector    | 1 x Std. 24 Pin ATX connector<br>3 x 8 Pin SSI 12V connectors  |
| Dimension (L x W)  | 12" x 9.6" (304.8mm x 243.84mm), PCB thickness is 2.54mm   |

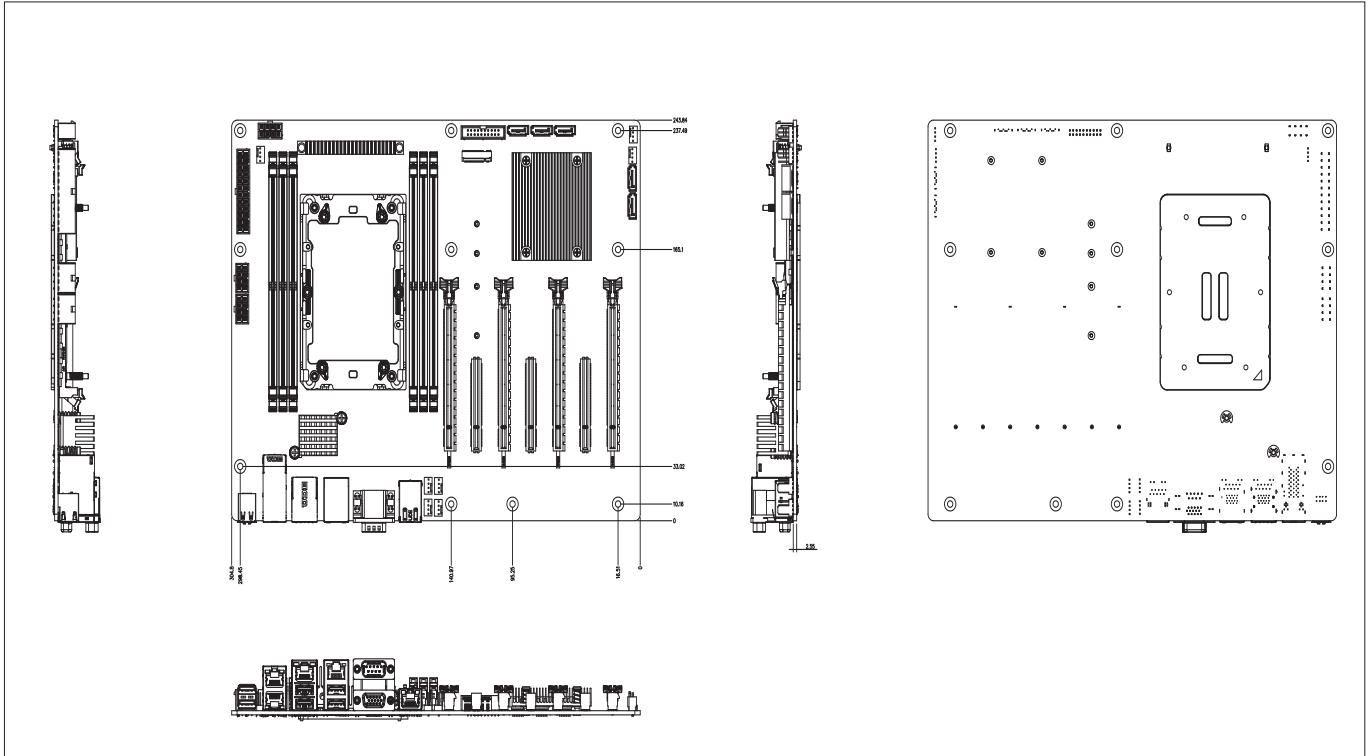
### Software Support

|    |   |
|----|---|
| OS | Windows 10 IoT Enterprise LTSC 2021<br>Windows 11<br>Windows Server 2019<br>Windows Server 2022<br>Ubuntu 21.10, 22.04 LTS or later<br>Red Hat Enterprise Linux(RHEL) 8.2 and later |
|----|---|

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## Mechanical Drawing



## Ordering Information

| P/N            | CPU | Chipset | Memory | PCIe Slot | 10 GbE | 2.5 GbE | 1 GbE | M.2 | USB 3.2 Gen2 | USB 3.2 Gen1 | USB 2.0 | TPM 2.0 |
|----------------|-----|---------|--------|-----------|--------|---------|-------|-----|--------------|--------------|---------|---------|
| HPM-SRSUAA-A1R | 1   | C741    | 6      | 7         | 2      | 1       | 1     | 1   | -            | 8            | 2       | 1       |
| HPM-SRSUAL-A1R | 1   | C741    | 6      | 7         | -      | 1       | 1     | 1   | -            | 8            | 2       | 1       |

## Packing List

| Item                    | P/N             | Quantity |
|-------------------------|-----------------|----------|
| HPM-SRSUA motherboard   | HPM-SRSUAA-A1R  | 1        |
| HPM-SRSUAA I/O shield   | E195BKHPRSUA00R | 1        |
| LGA4677 CPU carrier-E1B | E199TR00063R    | 1        |

## Optional Items

| Item                                   | P/N             |
|--|-----------------|
| CPU Cooler for LGA4677 4U 4500RPM 350W | BCC-FAN-467-01R |

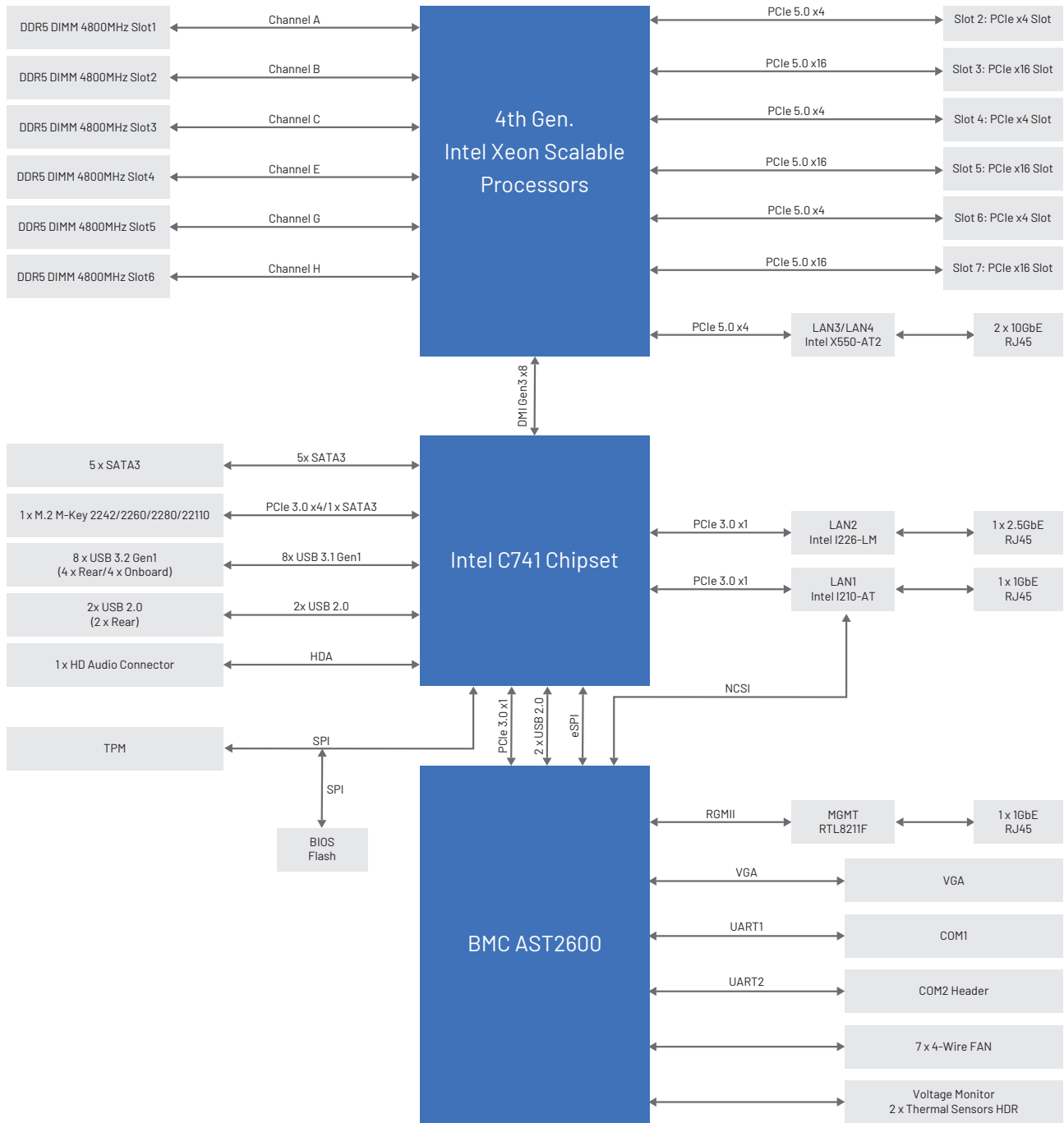
## CPU Support List (HPC Only)

| SKU                       | Launch Date | # of Cores | # of Threads | Processor Base Frequency | Max Turbo Frequency | TDP (W) |
|---------------------------|-------------|------------|--------------|--------------------------|---------------------|---------|
| Intel® Xeon® Gold 6448Y   | Q1,23       | 32         | 64           | 2.1 GHz                  | 4.1 GHz             | 225     |
| Intel® Xeon® Gold 6426Y   | Q1,23       | 16         | 32           | 2.5 GHz                  | 4.1 GHz             | 185     |
| Intel® Xeon® Gold 6418H   | Q1,23       | 24         | 48           | 2.1 GHz                  | 4.0 GHz             | 185     |
| Intel® Xeon® Gold 5415+   | Q1,23       | 8          | 16           | 2.9 GHz                  | 4.1 GHz             | 150     |
| Intel® Xeon® Gold 5420+   | Q1,23       | 28         | 56           | 2.0 GHz                  | 4.1 GHz             | 205     |
| Intel® Xeon® Gold 5418Y   | Q1,23       | 24         | 48           | 2.0 GHz                  | 3.8 GHz             | 185     |
| Intel® Xeon® Silver 4416+ | Q1,23       | 20         | 40           | 2.0 GHz                  | 3.9 GHz             | 165     |
| Intel® Xeon® Silver 4410Y | Q1,23       | 12         | 24           | 2.0 GHz                  | 3.9 GHz             | 150     |
| Intel® Xeon® Silver 4410T | Q1,23       | 10         | 20           | 2.7 GHz                  | 4.0 GHz             | 150     |
| Intel® Xeon® Bronze 3408U | Q1,23       | 8          | 8            | 1.8 GHz                  | 1.9 GHz             | 125     |
| Intel® Xeon® Gold 6430    | Q1,23       | 32         | 64           | 2.10 GHz                 | 3.40 GHz            | 270     |

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## Block Diagram



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## I/O Overview

