

# Apogean Server with Single 5th and 4th Gen Intel® Xeon® Scalable Processors

IS41U-S4-A / IS82U-S4-A / IS122U-S4-A /  
IS242U-S4-A / IS163U-S4-A / IS244U-S4-A /  
IS364U-S4-A



Items pictured may only be representative.

## Features

- Supports Single 5th and 4th Gen Intel® Xeon® Scalable Processors
- 8 DIMM slots (1DPC), supports DDR5 RDIMM/ RDIMM-3DS
- 4 PCIe5.0 / CXL1.1 x16 Slots
- 1 MCIO (PCIe3.0 x4 or 4 SATA 6Gb/s), 2 MCIO (PCIe5.0 x8)
- 2 M.2 slots (PCIe3.0 x4 or SATA 6Gb/s)
- 2 RJ45 (10GbE) by Broadcom BCM57416
- 2 RJ45 (1GbE) by Intel® i210
- Remote Management (IPMI)

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## Specifications:

### Physical Status

Form Factor Rackmount 1U/2U/3U/4U Rackmount  
(As per the Drive Slots)

### Processor System

CPU Supports 5th and 4th Gen Intel® Xeon® Scalable Processors  
Socket Single Socket E (LGA 4677)  
Thermal Design Power 350W  
Chipset Intel® C741

### System Memory

Supported DIMM 8 DIMM slots (1DPC)  
Quantity  
Supported Type 288-pin DDR5 RDIMM/ RDIMM-3DS  
Max. Capacity per DIMM RDIMM: 96GB  
RDIMM-3DS: 2H- 128 GB / 4H- 256 GB  
5600 MT/s on 5th Gen Intel® Xeon® Scalable Processors  
Max. DIMM Frequency 4800 MT/s on 4th Gen Intel® Xeon® Scalable Processors  
\*Memory speed and capacity support varies by CPU SKU  
Voltage 1.1V

### PCIe Expansion Slots (SLOT7 close to CPU)

PCIe x16 SLOT7: PCIe5.0 / CXL1.1 x16 [CPU]  
SLOT5: PCIe5.0 / CXL1.1 x16 [CPU]  
SLOT3: PCIe5.0 / CXL1.1 x16 [CPU]  
SLOT1: PCIe5.0 / CXL1.1 x16 [CPU]

### Other PCIe Expansion Connectors

M.2 slot 1 M-key M2\_1 (PCIe3.0 x4 or SATA 6Gb/s), supports 22110/2280/2242 form factor [PCH]  
1 M-key M2\_2 (PCIe3.0 x4 or SATA 6Gb/s), supports 22110/2280 form factor [PCH]  
Others 2 MCIO (PCIe5.0 x8) [CPU]  
1 MCIO (PCIe3.0 x4 or SATA 6Gb/s) [PCH]

### SATA/SAS Storage

Drive Slots 4 x 3.5/2.5" Drive Slots - 1U Rack  
8/12 x 3.5/2.5" Drive Slots - 2U Rack  
24 x 2.5" Drive Slots - 2U Rack  
16 x 3.5/2.5" Drives Slots - 3U Rack  
24 x 3.5/2.5" Drives Slots - 4U Rack  
36 x 3.5/2.5" Drives Slots - 4U Rack  
Note: Additional RAID/HBA Card is required for 12 and above drive slots SKUs.

### Ethernet

Additional GbE Controller 2 RJ45 (10GbE) by Broadcom BCM57416  
2 RJ45 (1GbE) by Intel® i210

### Server Management

BMC Controller ASPEED AST2600: IPMI2.0 with iKVM and vMedia support  
IPMI Dedicated GLAN 1 RJ45 Dedicated IPMI LAN port by Realtek RTL8211F

### Graphics

Controller ASPEED AST2600:  
1 DB15 (VGA)

### Rear I/O

UID Button/LED 1 UID button w/ LED  
Video Port 1 DB15 (VGA)  
USB 3.2 Gen1 Port 2 Type-A (USB3.2 Gen1)  
RJ45 2 RJ45(10GbE), 2 RJ45(1GbE), 1 dedicated IPMI

### Internal Connector/Headers

Power Connector 1 (24-pin, ATX main power), 5 ( 8-pin, ATX 12V)  
Auxiliary Panel Header 1 (18-pin): chassis intrusion, system fault LED, LAN1/LAN2 activity LED, locate, SMBus  
System Panel 1 (9-pin): power switch, reset switch, system power LED, HDD activity LED  
COM Header 1 (9-pin)  
Speaker Header 1 (4-pin)  
Fan Header 6 (6-pin)  
Thermal Sensor Header 1  
TPM Header 1 (13-pin, SPI)  
VROC header 1  
SGPIO Header 2  
HSBP 1  
SMBus header 1  
PMBus header 1  
IPMB Header 1  
Clear CMOS 1 (contact pads)  
Front Lan LED Connector 1  
USB 3.2 (Gen1) Header 1 (19-pin, 2 USB3.2 Gen1)  
USB 2.0 Header 1 (9-pin, 2 USB2.0)  
NMI Header 1

### LED Indicators

Standby PWR LED 1  
80 Debug Port LED 1  
Fan Fail LED 6  
BMC heartbeat LED 1

### System BIOS

BIOS Type AMI 256Mb SPI Flash ROM  
BIOS Features Plug and Play (PnP), ACPI 4.0 and above compliance wake up events, SMBIOS 3.4 and above, Instant Flash

### Hardware Monitor

Temperature CPU, MB, Card side, TR1 Temperature sensing  
Fan Tachometer Fan Quiet Fan (Allow Chassis Fan Speed Auto-Adjust by CPU Temperature)  
Fan Multi-Speed Control  
Voltage CPU1\_PVCCIN, 1.05V\_PCH, 1.8V\_PCH, +BAT, PVNN\_PCH, 3.3V, 5V, 12V, 3.3VSB, 5VSB, +12V, +12VSB  
Power Supply Single/Dual : 500W, 800W, 1200W, 1600W, 2000W, 2400W

### Environment

Temperature Operation temperature: 10°C ~ 35°C / Non operation temperature: -40°C ~ 70°C  
Humidity Non operation humidity: 20% ~ 90% ( Non condensing)