Key Features:

- Supports Dual Socket E (LGA 4677) 5th and 4th Gen Intel® Xeon® scalable Processors
- 16+16 DIMM slots (2DPC), supports DDR5 RDIMM/ RDIMM-3DS
- Supports Intel's 3rd Generation Optane DC Persistent Memory 'Crow Pass' modules
- 8x Hot-swap 2.5" NVMe (PCIe5.0) drive bays, 2x Hot-swap 2.5" SATA drive bays
- 4x FHFL single-slot PCIe5.0 x16 or 2x FHFL dual-slot PCIe5.0 x16
- 2x OCP NIC 3.0 (PCIe5.0 x16)
- Supports 2x M.2 (PCIe4.0 x4)
- 2U Rackmount with 1+1 2700W CRPS
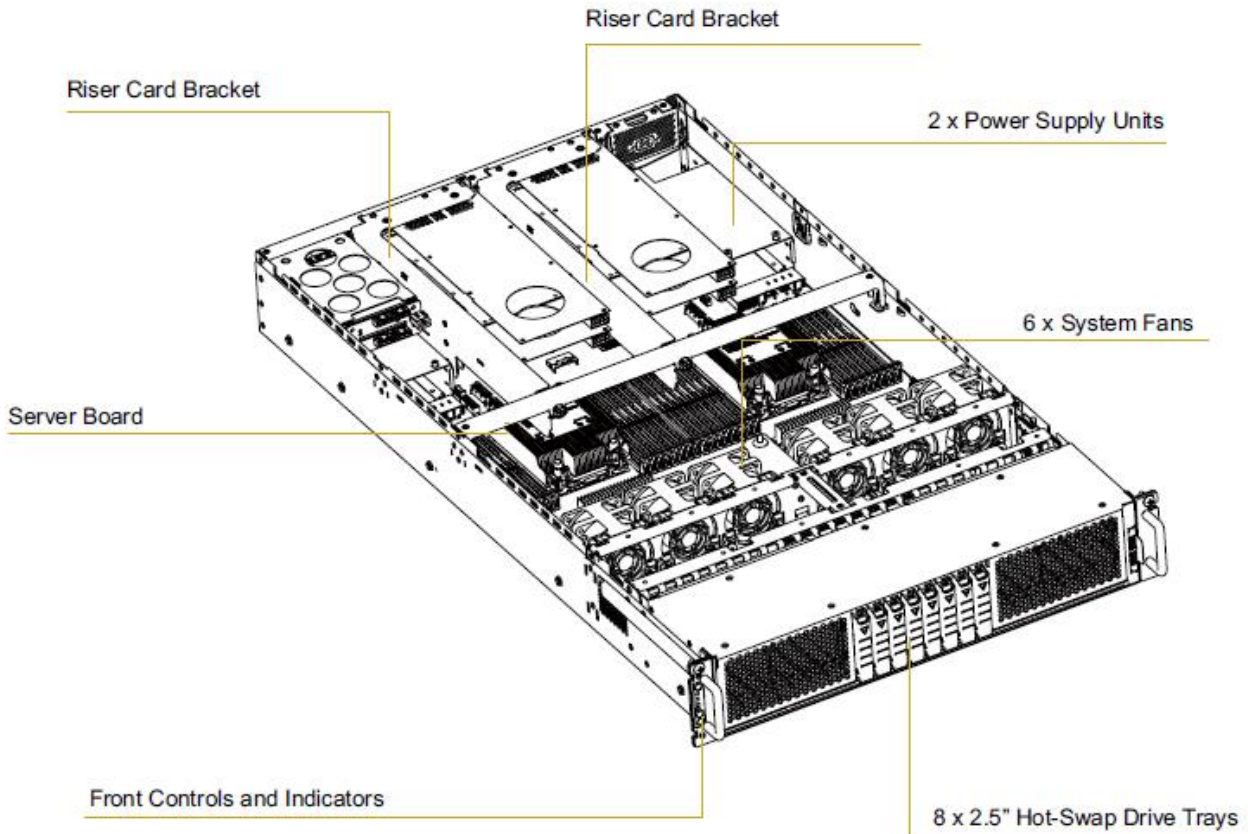- Remote management (IPMI)

Specifications	
Motherboard	
Model Motherboard	AsRock SP2C741D32TM3 Server Board Capella
Form Factor	Proprietary
Dimension	18.87" x 16.85" (479.30 x 427.99mm)
CPU	Supports 4th and 5th Gen Intel® Xeon® Scalable processors, codenamed Sapphire Rapids and Emerald Rapids.
Socket	1+1 Socket E (LGA 4677)
Thermal Design Power (TDP)	~350W
Processor	*(see table below)*
Chipset	Emmitsburg Intel C741

Model	Cores	Base (GHz)	Turbo (GHz)	Max (GHz)	Cache (MB)
Gold 6530	32	2.1	2.7	4	160
Gold 5520+	28	2.2	3	4	52.5
Silver 4516+	24	2.2	2.9	3.7	45
Silver 4514Y	16	2	2.6	3.4	30
Silver 4510T	12	2.4	3.3	4.1	30
Silver 4509Y	8	2.6	3.6	4.1	22.5

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Specifications

System Memory	
Supported DIMM Quantity	16 +16 DIMM slots (2DPC)
Supported Type	288-pin DDR5 RDIMM/RDIMM-3DS
Voltage	1.1V
Note	Memory support is to be validated
Memory	Supports DDR5, Total 16 +16 memory slots Max 96GB per slot 8GB DDR5-RDIMM 16GB DDR5-RDIMM 32GB DDR5-DIMM 64GB DDR5-RDIMM 96 GB DDR5-RDIMM
PCIe Expansion Slots	
Slot 1 Slot 2	Gen Z 4C (PCIe5.0 / CXL1.1 x16) [CPU1] Gen Z 4C (PCIe5.0 / CXL1.1 x16) [CPU2]
Other PCIe Expansion Connectors	
M.2 slot	2 M-key (PCIe4.0 x4), supports 22110/2280 form factor [CPU2]
MCIO	6 MCIO (PCIe5.0 x8) [CPU2] 6 MCIO (PCIe5.0 x8) [CPU1]
SATA/SAS Storage	
PCH Built-in Storage	Emmitsburg chipset (Intel® C741) (8 SATA 6Gb/s, support RAID 0/1/5/10): 1 Slimline
Ethernet	
OCP Slot	1 OCP NIC 3.0 (PCIe5.0 x16) [CPU2] 1 OCP NIC 3.0 (PCIe5.0 x16) [CPU1]
USB	
Controller/Hub	Emmitsburg chipset Intel® C741
Connectors/ Headers	External: 2 Type-A (USB3.2 Gen1) Internal: 1 header (26-pin, 1 USB3.1 Gen1, 2 USB2.0) 1 header (19-pin, 2 USB3.1 Gen1)
Graphics	
Controller	ASPEED AST2600: 1 Mini-DP (not support DP++), 1 header (VGA)
Security	
TPM	1 (13-pin, SPI)

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Specifications	
Rear I/O	
UID Button/LED	1 UID button w/ LED
Video Output	1 Mini-DP (DP/Mini_DP)
USB	2 Type-A (USB3.2 Gen1)
RJ45	1 RJ45 (COM), 1 dedicated IPMI
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
System BIOS	
BIOS Type	AMI UEFI BIOS; 512Mb SPI Flash ROM
Features	Plug and Play, ACPI 4.0 and above compliance wake up events, SMBIOS 3.4 and above, ASRock Rack Instant Flash
Internal Connectors/Headers	
PSU Connector	2 (CRPS IN +12V/+12VSB, max. 2700W)
Other Power Connectors	4 (2x4 pin, 12V) for PCIe cards, 2 (2x3 pin, 12V) for HSBP, 2 (2x3 pin,3.3VSB,3.3V,12V) for MCIO
Auxiliary Panel Header	1 (18-pin): chassis intrusion, system fault LED, locate, SMBus
System Panel Header	1 (26-pin): System fault LED, locate, SMBus, power switch, reset switch, system power LED
NMI Header	1
VGA Header	1 (15 pin)
Fan Header	8 (4 pin) for 2U system
TPM Header	1 (13 pin, SPI)
VROC Header	1
HSBP	2
SMbus Header	1
Speaker	1
Clear CMOS	1 (contact pads)
LED Indicators	
Standby Power LED	1
80 Debug Port LED	1
Fan Fail LED	8
BMC Heartbeat LED	1
Support OS	

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Specifications	
OS	Microsoft® Windows® - Server 2022(64 bit) Linux® - Red Hat Enterprise Linux Server 8.4(64bit) / 8.5(64bit) / 9.1(64bit) - SUSE Enterprise Linux Server 15 SP3(64bit) - Ubuntu 21.10(64bit), 22.04(64bit) Hypervisor - VMWare® ESXi 7.0 U3g / 8.0
Environment	
Operating temperature	10 - 35°C (50 - 95 deg F)
Non-operating temperature	-40 - 70°C (-40 - 158deg F)
Chassis	
System Physical Status	
Form Factor	2U Rackmount
Dimension (D x W x H)	800 x 438 x 87.3mm (31'' x 17.2'' x 3.44'')
Front Panel	
Buttons	• Power button • w/ LED • ID w/ LED • System Reset
LEDs	System Fault
I/O Ports	2 Type-A (USB3.2 Gen1)
External Drive Bay / Storage	
Front Side Drive Bay	8 Hot-swap 2.5" NVMe (PCIe5.0) drive bays
Front Side Backplane	one 8-ports NVMe passive backplane
Rear Side	2 Hot-swap 2.5'' SATA drive bays
Rear Side Bakplane	one 2-ports SATA passive backplane
Internal	2 M-key (PCIe4.0 x4), support 22110/2280 form factor
System Fan	
Fan	6 PWM fixed 60x56 mm fans
Power Supply	
Type	1+1 CRPS
Output Watts	2700W
Efficiency	80-PLUS Platinum
AC Input	100-240V, 60/50Hz

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Specifications

Riser Card Bracket

Riser Card Bracket

2 x Power Supply Units

6 x System Fans

Server Board

Front Controls and Indicators

8 x 2.5" Hot-Swap Drive Trays

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