MP SuperServer SYS-681E-TR

6U 8-socket system with 128 DIMMs, 24 NVMe/SAS/SATA drive bays, and 24 PCIe slots

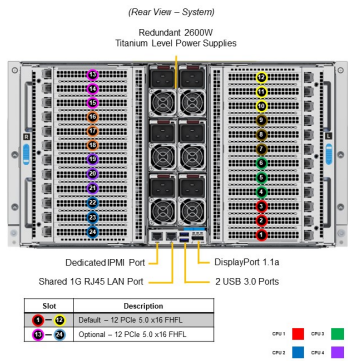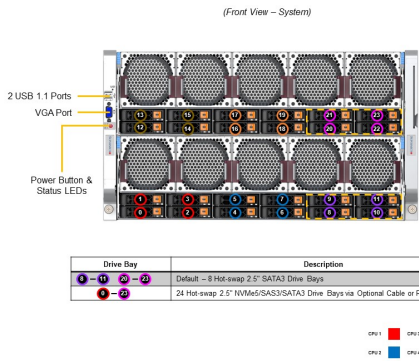More details here

Key Applications

In-Memory Database, Virtualization, ERP, CRM, Research Lab/National Lab,
Scale -up HPC,

Key Features

- Octa Socket E (LGA-4677) 4th Generation Intel® Xeon® Scalable processors;
- 128 DIMM Slots; Up to 32TB DDR5-4800MHz ECC RDIMM/RDIMM-3DS;
- Optional PCIe configurations up to 24 PCIe slots with support for 12 double-width GPU/Accerlator cards;
- 24x 2.5" Hot-swap NVMe/SAS3/SATA3 drive bays ; 2x internal M.2 NVMe/SATA; Optional RAID support via storage add-on card;
- 10 heavy duty fans w/ optimal fan speed control;

Form Factor	6U Rackmount Enclosure: 449 x 265 x 841mm (17.68" x 10.4" x 33.1") Package: 720 x 922 x 1080mm (28.34" x 36.3" x 42.5")
Processor	8 Socket E (LGA-4677) 4th Gen Intel® Xeon® Scalable processors Up to 60C/120T; Up to 112.5MB Cache per CPU
GPU	Up to 12 double-width GPUs
System Memory	Slot Count: 128 DIMM slots Max Memory (1DPC): Up to 16TB 4800MT/s ECC DDR5 RDIMM Max Memory (2DPC): Up to 32TB 4400MT/s ECC DDR5 RDIMM
Drive Bays Configuration	Default: Total 8 bays • 8 front hot-swap 2.5" SATA drive bays Option A: Total 24 bays • 24 front hot-swap 2.5" NVMe*/SAS*/SATA* drive bays (*NVMe/SAS/SATA support may require additional storage controller and/or cables, please see the optional parts list for details) M.2: 2 M.2 PCIe 3.0 x4 NVMe/SATA slots (M-key 2280/22110)
Expansion Slots	PCI-Express (PCIe) Configuration: Default • 12 PCIe 5.0 x16 FHFL slots • 2 PCIe 5.0 x16 LP slots Option A* • 12 PCIe 5.0 x16 FHFL slots M.2: 2 M.2 NVMe/SATA slots (M-key 2280/22110)
On-Board Devices	Chipset: Intel® C741 Network Connectivity: 1 RJ45 1GBASE-T

Input / Output	LAN: 1 RJ45 1 GbE Dedicated BMC LAN port
	        1 RJ45 1 GbE LAN port
	USB: 2 USB 3.0 ports(rear)
	        2 ports(front)
	Video: 1 VGA port(Front)
	          1 DisplayPort port(Rear)

(Front View – System)

2 USB 1.1 Ports
VGA Port

Power Button &
Status LEDs

Drive Bay	Description
9 – 11 20 – 22	Default – 8 Hot-swap 2.5" SATA3 Drive Bays
6 – 24	24 Hot-swap 2.5" NVMe5/SAS3/SATA3 Drive Bays via Optional Cable or RAID Controller

| CPU 1 | CPU 3 | CPU 5 | CPU 7 |
| CPU 2 | CPU 4 | CPU 6 | CPU 8 |

(Rear View – System)

Redundant 2600W
Titanium Level Power Supplies

Dedicated IPMI Port
Shared 1G RJ45 LAN Port

DisplayPort 1.1a
2 USB 3.0 Ports

Slot	Description
1 – 12	Default – 12 PCIe 5.0 x16 FHFL
13 – 24	Optional – 12 PCIe 5.0 x16 FHFL

| CPU 1 | CPU 3 | CPU 5 | CPU 7 |
| CPU 2 | CPU 4 | CPU 6 | CPU 8 |

System Cooling

Fans: Up to 10 Heavy duty counter-rotating 8cm Fan(s)
Air Shroud: 1 Air Shroud

Power Supply

4x 2600W Redundant (2 + 2) Titanium Level (96%) power supplies

System BIOS

BIOS Type: AMI 32MB SPI Flash EEPROM

Management

SuperCloud Composer®; Supermicro Server Manager (SSM); Supermicro Update Manager (SUM); Supermicro SuperDoctor® 5 (SD5); Super Diagnostics Offline (SDO); Supermicro Thin-Agent Service (TAS); SuperServer Automation Assistant (SAA) New!

PC Health Monitoring

CPU: Monitors for CPU Cores, Chipset Voltages, Memory
  4+1 Phase-switching voltage regulator
FAN: Fans with tachometer monitoring
  Status monitor for speed control
  Pulse Width Modulated (PWM) fan connectors
Temperature: Monitoring for CPU and chassis environment
  Thermal Control for fan connectors

Dimensions and Weight

Weight: Gross Weight: 242.5 lbs (110 kg)
  Net Weight: 176.37 lbs (80 kg)
Available Color: Black

Operating Environment

RoHS Compliant
Operating Temperature: 10°C to 35°C (50°F to 95°F)
Non-operating Temperature: -40°C to 60°C (-40°F to 140°F)
Operating Relative Humidity: 8% to 90% (Non-Condensing)
Non-operating Relative Humidity: 5% to 95% (Non-Condensing)

Motherboard

Super X13OEI-CPU

Chassis

CSE-618TS-R5K26P