X13 SuperEdge

High-Density Computing and Flexibility at the Intelligent Edge

Compact yet versatile system designed for maximum performance at the Edge

- **2U Short-depth (430mm), 3-node system**
- **Single 5th/4th Gen Intel® Xeon® Scalable processor per node**
- **Front-access hot-swappable nodes**
- **Up to 8 DIMMs slots per node supporting DDR5-5600**
- **Up to 3 PCIe 5.0 slots per node**
- **Operating temperatures from -5°C to 55°C (CPU TDP-dependent)**

Integrated COTS System Design

Supermicro's X13 SuperEdge features an integrated, all-in-one Commercial Off The Shelf (COTS) server design optimized for CU/DU deployments in Open vRAN networks. With NCSI support, operators can use a single fiber connection for both data traffic and OOB management, and the integrated architecture of the 5G RAN system eliminates the need for add-on cards and breakout cables, resulting in a system that is optimized for cost, size and power usage and is able to handle immense traffic volumes at remote locations.

Front Accessibility

The X13 SuperEdge has been designed to incorporate easily into existing telco and edge data center infrastructure, with front-swappable nodes featuring front I/O making servicing in space-constrained environments simpler. Both AC and DC power supply options are also available to accommodate the constraints often encountered at remote data center locations.

Short Depth for Edge Deployments

At just 430mm in depth, the X13 SuperEdge chassis is designed to fit into space -constrained environments such as edge data centers and telco cabinets and the optimized thermal design allows maximum airflow over internal components for an ambient operating temperature range of up to -5°C to 55°C. The SuperEdge architecture has also been designed to withstand a wide range of humidity and other environmental conditions, making it suitable for deployment in harsh conditions outside of the traditional data center.

Powered by 5th Gen Intel Xeon Processors

Get data center performance at the edge with 5th Gen Intel Xeon Processors up to 300W TDP per node. The new processors are available in Edge-optimized SKUs which feature the built-in Intel vRAN Boost accelerator which can provide up to 2x vRAN capacity at the same power envelope and reduce power consumption by up to 20% on vRAN workloads.

X13 SuperEdge

Multi-Node Enterprise Edge Computing

Customizable 2U 4-Node System for Edge and Telco

- **Single 5th/4th Gen Intel® Xeon® Scalable processor per node**
- **24 front-access 2.5" hot-swap SATA drives (6 per node)**
- **Up to 8 DIMMs slots per node supporting DDR5-5600Mhz**
- **Up to 2 PCIe 5.0 HHHL slots per node**
- **Operating temperatures from 0°C - 35°C (32°F - 95°F) (CPU TPD-dependent)**

Data Center-Class Performance and Expandability at the Edge

Supermicro's SuperEdge is designed to handle the increasing compute and I/O density requirements of modern 5G applications. With 4 customizable single-processor nodes, SuperEdge delivers high-class performance in a 2U chassis. Each node is hot-swappable and offers front-access storage drives, making the system ideal for remote IoT, edge, or telco deployments. Each node can accommodate two PCIe 5.0 slots, enabling a wide range of add-on cards such as FPGA, DPU, eASIC, and TimeSync cards that allow SuperEdge to be outfitted for networking.

Powered by 5th Gen Intel Xeon Processors

Get data center performance at the edge with 5th Gen Intel Xeon Processors up to 270W TDP per node. The new processors are available in Edge-optimized SKUs which feature the built-in Intel vRAN Boost accelerator which can provide up to 2x vRAN capacity at the same power envelope and reduce power consumption by up to 20% on vRAN workloads.

Front View

Rear View




SuperEdge 3-Node	SYS-211SE-31A/AS (per node)	SYS-211SE-31D/DS (per node)
Processor Support (node)	Single 5th/4th Gen Intel® Xeon® Scalable processor Up to 300W TDP (air cooled)†	Single 5th/4th Gen Intel® Xeon® Scalable processor Up to 300W TDP (air cooled)†
Memory Slots & Capacity (node)	8 DIMM slots; Up to 2TB DDR5-5600MT/s	8 DIMM slots; Up to 2TB DDR5-5600MT/s
I/O Ports (node)	1 1GbE RJ45 port (SYS-211SE-31A) 1 1GbE SFP port (SYS-211SE-31AS) 1 KVM dongle (output VGA x1, COM x1, USB 2.0 x2 through KVM cable)	1 1GbE RJ45 port (SYS-211SE-31D) 1 1GbE SFP port (SYS-211SE-31DS) 1 KVM dongle (output VGA x1, COM x1, USB 2.0 x2 through KVM cable)
Motherboard	X13SEED-F (SYS-211SE-31A) X13SEED-SF (SYS-211SE-31AS)	X13SEED-F (SYS-211SE-31D) X13SEED-SF (SYS-211SE-31DS)
Form Factor	2U Rackmount 430mm/16.9" depth	2U Rackmount 430mm/16.9" depth
Expansion Slots (node)	2 PCIe 5.0 x16 FHHL 1 PCIe 5.0 x16 LP	2 PCIe 5.0 x16 FHHL 1 PCIe 5.0 x16 LP
Drive Bays (node)	2 NVMe M.2 2280/22110 (per node)	2 NVMe M.2 2280/22110 (per node)
Cooling	4 heavy duty fans	4 heavy duty fans
Power	2000W AC Redundant power supplies	2000W DC Redundant power supplies

†CPUs with high TDP supported under specific conditions. Contact Technical Support for details.


SuperEdge 4-Node	SYS-211TP-HPTR (per node)	SYS-211TP-HPTRD (per node)
Processor Support (node)	Single 5th/4th Gen Intel® Xeon® Scalable processor Up to 270W TDP (air cooled)†	Single 5th/4th Gen Intel® Xeon® Scalable processor Up to 270W TDP (air cooled)†
Memory Slots & Capacity (node)	8 DIMM slots; Up to 2TB DDR5-5600MT/s	8 DIMM slots; Up to 2TB DDR5-5600MT/s
I/O Ports (node)	Dedicated IPMI LAN port 2 10GbE SFP+ ports 2 USB 3.0 Gen1 ports 1 VGA port	Dedicated IPMI LAN port 2 10GbE SFP+ ports 2 USB 3.0 Gen1 ports 1 VGA port
Motherboard	X13SET-PT	X13SET-PT
Form Factor	2U Rackmount 730mm/28.75" depth	2U Rackmount 730mm/28.75" depth
Expansion Slots (node)	2 PCIe 5.0 x16 LP slots	2 PCIe 5.0 x16 LP slots
Drive Bays (node)	6 hot-swap 2.5" drive bays	6 hot-swap 2.5" drive bays
Cooling	4 heavy duty 8cm fans (per enclosure)	4 heavy duty 8cm fans (per enclosure)
Power	2000W AC Redundant power supplies (per enclosure)	2000W DC Redundant power supplies (per enclosure)

†CPUs with high TDP supported under specific conditions. Contact Technical Support for details.