

X13 5G Edge and IoT

Compact and Short-depth Systems for Telco and Network Edge Deployments



High-density processing power and data throughput with front access I/O design

- Single 5th/4th Gen Intel® Xeon® Scalable processor
- Flexible configuration with up to 3 PCIe 5.0 slots in 1U or 4 slots in 2U
- RJ45 10GbE or SFP 25Gb network connectivity
- Front I/O, power and serviceability for space constrained edge environments
- Both AC and DC power configurations available with redundant power supplies
- Enhanced operating temperatures from -5°C to 45°C (CPU TDP-dependent)

Data Center Compute at the Network Edge

Supermicro's X13 5G Edge and IoT solutions are uniquely designed to deliver high performance compute capabilities to remote environments, combining ease of use in virtualized applications with data-center-level security and performance for 5G telco, retail, network virtualization and smart city applications. Through Supermicro's proven Building Block Solutions architecture, these systems incorporate many of the design features proven in traditional data centers to maximize performance at the edge.

Efficiency and Flexibility

Efficiency is everything at the edge, and no matter what kind of 5G or Edge workload, Supermicro has an optimized system designed to maximize compute while adhering to thermal and power constraints which are commonly encountered outside the data center. Systems feature front-accessible I/O and power for compatibility with existing telco cabinet and rack infrastructure, with multiple PCIe 5.0 slots to accommodate a range of networking, FPGA and retimer cards specific to 5G and Edge computing workloads.

Designed for Remote Data Center Deployment

Designed for remote and space-constrained telco environments, these short-depth and compact systems are available with both AC and DC redundant power options as well as NEBS-compliant designs on some architectures to easily integrate into existing edge infrastructure. The systems have also been designed to support a wider range of operating temperatures from -5°C to 45°C to ensure reliable operation in the harsh remote environments typical of edge deployments.

Powered by 5th Gen Intel® Xeon® Processors

The new 5th Gen Intel Xeon processors deliver higher performance-per-watt in the same or lower power envelope, resulting in more efficient systems optimized for Edge workloads. With built-in Intel vRAN Boost on the CPU die, Edge workloads can benefit from up to 2x vRAN capacity gains and an additional 20% in compute power savings on vRAN workloads.



5G Edge and IoT	SYS-211E-FRN2T/FRDN2T	SYS-111E-FWTR/FDWTR
Processor Support	Single 5th/4th Gen Intel® Xeon® Scalable processor up to 270W ¹	Single 5th/4th Gen Intel® Xeon® Scalable processor up to 350W ¹
Memory Slots & Capacity	8 DIMM slots; Up to 2TB DDR5-5600MT/s	8 DIMM slots; Up to 2TB DDR5-5600MT/s
Compliance Features	Designed for with compliance to NEBS Level 3	
I/O Ports	1 RJ45 dedicated BMC LAN port (front) 2 RJ45 10GbE ports (Intel X550-AT2; front) 2 USB 2.0 ports (front) 2 USB 3.0 ports (front) 1 VGA port (front) 1 COM port (front)	1 RJ45 Dedicated IPMI LAN port (front) 2 RJ45 10GbE ports (Intel® X550-AT2; front) 2 USB 2.0 ports (front) 2 USB 3.0 ports (front) 1 VGA port (front) 1 COM port (front)
Motherboard	X13SEM-TF	X13SEW-TF
Form Factor	2U Rackmount 298.8mm/11.8 depth	1U Rackmount 429.3mm/16.9" depth
Expansion Slots	1 PCIe 5.0 x16 HHHL slot 1 PCIe 5.0 x8 HHHL slot 2 PCIe 5.0 x16 FHHL slots	2 PCIe 5.0 x16 FHFL slots 1 PCIe 5.0 x16 LP slot
Drive Bays	2 hot-swap 2.5" NVMe drive bays	2 fixed internal 2.5" SATA drive bays
Cooling	4 heavy duty fans	
Operating Temperature	0°C-45°C (32°F-113°F)	
Power	800W Redundant AC power supply (SYS-211-FRN2T) 600W Redundant short depth DC48V input power supply (SYS-211E-FRDN2T)	800W AC Redundant power supply (SYS-111E-FWTR) 600W DC Redundant power supply (SYS-111E-FDWTR)

¹ CPUs with high TDP supported under specific conditions. Contact Technical Support for details.



5G Edge and IoT	SYS-211E-FRN13P/FRDN13P	SYS-E403-13E-FRN2T
Processor Support	Single 5th/4th Gen Intel® Xeon® Scalable processor up to 270W ¹	Single 5th/4th Gen Intel® Xeon® Scalable processor up to 350W ¹
Memory Slots & Capacity	8 DIMM slots; Up to 2TB DDR5-5600MT/s	8 DIMM slots; Up to 2TB DDR5-5600MT/s
I/O Ports	1 RJ45 shared BMC LAN port (front) 12 SFP28 25Gb ports 2 USB 3.0 ports (front) 1 VGA port (front) 1 GNSS + 4 1PPS ports (front)	1 RJ45 Dedicated IPMI LAN port (front) 2 RJ45 10GbE ports (Intel® X550-AT2; front) 2 USB 2.0 ports (front) 2 USB 3.2 ports (front) 1 VGA port (front) 1 serial port (front)
Motherboard	X13SEVR-SP13F	X13SEW-TF
Form Factor	2U Rackmount 298.8mm/11.8 depth	Embedded Box 117.35x266.7x406.4mm/4.62x10.5x16" (HxWxD)
Expansion Slots	2 PCIe 5.0 x8 FHHL slots	3 PCIe 5.0 x16 FHFL slots
Drive Bays	2 fixed internal 2.5" SATA drive bays	2 hot-swap 2.5" NVMe drive bays
Cooling	4 8cm 4-PIN PWM fans	3 heavy duty 8cm fans
Operating Temperature	0°C-40°C (32°F-104°F)	0°C-45°C (32°F-113°F)
Power	800W redundant AC redundant power supply (SYS-211-FRN13P) 600W redundant short depth DC48V input power supply (SYS-211E-FRDN13P)	800W AC Redundant power supply

¹ CPUs with high TDP supported under specific conditions. Contact Technical Support for details.