X13 5G RAN

Integrated COTS System for Scalable, Cost-Efficient Cell Site Deployments

2U RAN-Optimized Short-depth Rackmount

- **Single 5th/4th Gen Intel® Xeon® Scalable processors featuring Intel vRAN Boost**
- **12 Built-in 25GbE SFP28 Network Ports**
- **8 DIMM slots supporting DDR5 4800 MHz**
- **2 PCIe 5.0 FHHL slots**
- **GNSS & IEEE1588 Sync-E Support**

Integrated, COTS System Design

An all-in-one, Commercial Off The Shelf (COTS) server, designed and optimized for CU/DU deployments in Open vRAN networks, featuring onboard network interface, 12 onboard SFP 25Gb ethernet ports, and timing support with 8 hours of holding time. With NCSI support, operators can use a single fiber connection for both data traffic and OOB management The integrated build of the 5G RAN system eliminates the need for add-on cards and breakout cables, providing a system that is optimized for cost, size, and power usage, able to handle immense traffic volumes at remote locations.

Intel vRAN Boost Accelerator

Supermicro's edge platform is based on 4th Gen Intel Xeon Scalable processors and designed to fully leverage the benefits of its vRAN Boost. Intel's on-chip acceleration capabilities reduce components requirements, power consumption, and overall system complexity for virtualized RANs. This results in a significant boost the the capacity, doubling the capacity gains for RAN workloads compared to previous generations.

Scaling Up Deployments

As RAN technology has matured, priorities are moving towards the capability to deploy cell sites at scale in a cost-effective manner, expanding the range of new technologies and building a future-proof network. This means a shift to attributes such as cost, power consumption, size and weight. The SYS-211E-FRN13P is specficially designed with those requirements in mind, delivering a platform that can easily be deployed in large numbers and reduces the total cost of owners (TCO) of the network.

The system is avaiable in both AC and DC redudant power options. Their front I/O design makes management easier and a small form factor allows for placement in space-constrained enviroments.

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5G RAN	SYS-211-FR(D)N13P
Processor Support	Single 5th/4th Gen Intel® Xeon® Scalable processor†
Outstanding Features	Design with compliance to NEBS Level 3 Onboard 12x 25GbE SFP28 ports GNSS & IEEE1588 Sync-E Support
Memory Slots & Capacity	8 DIMM slots Up to 2TB: 8x 256GB DRAM
I/O Ports	12x SPF28 25 GbE 1x 1GbE BaseT with Intel® i210-AT 2x USB 2.0 port(s) (2 front) 1x VGA Port 1x RJ45 Dry contact 4 sets 5x SMA 1 pps & GNSS
Motherboard	X13SEVR-SP13F
Form Factor	2U Rackmount Enclosure: 437 x 89 x 299mm (17.2" x 3.5" x 11.8") Package: 605 x 197 x 822mm (23.8" x 7.8" x 32.4")
Expansion Slots	2 PCIe 5.0 x8 FHHL slot(s)
Drive Bays	2x 2.5" SATA drive bays 1x M.2 NVMe M-Key, 2280
Cooling	4x 4-PIN PWM 8cm fan(s)
Power Supply	Redundant 800W AC Power Supply (SYS-211-FRN13P) Redundant 800W DC Power Supply (SYS-211-FRDN13P)

† Supports up to 270W TDP CPUs (Aircooled). CPUs with high TDP supported under specific conditions. Contact Technical Support for details.

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