ESR1-511-X4TF

IN SEARCH OF INCREDIBLE

Ideal for Edge-Computing and CU/DU Deployment

Powered by 4th/5th Gen Intel® Xeon® Scalable processors

ESR1-511-X4TF is powered by 5th Gen Intel® Xeon® Scalable processors (Code name: Emerald Rapids) and 4th Gen Intel® Xeon® Scalable processors with Intel vRAN Boost (Code name: Sapphire Rapids-EEC), delivering enhanced performance through Intel vRAN Boost acceleration. This includes new acceleration capabilities for Sounding Reference Signal (SRS) channel-estimation workloads.

1U ultra-low footprint design perfect for edge computing

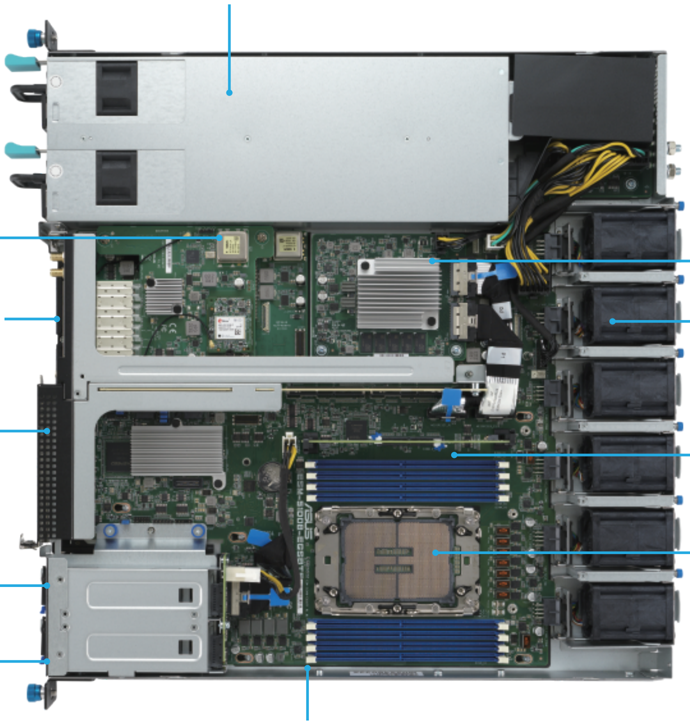
ESR1-511-X4TF features a front-access design and a depth of 430 mm, accommodating up to two FH3/4L slots for GPU and FPGA cards for edge computing and O-RAN CU/DU deployment.

Highly integrated (FEC/Time Sync) and TCO-optimized

The DU solution integrates the Intel vRAN Accelerator ACC100 and Intel E810 time-sync module, making it the most TCO-optimized DU solution in the market.

Carrier-grade design and extended operating temperature range

ESR1-511-X4TF is designed to be NEBS Level 3 compliant, supporting an operating temperature range of -5℃ to 65 ℃ through thermal optimization.



1+1 redundant 1300W slim AC/DC PSU

GPS Module*

a. 2xTime-Sync module
b. 1xTime-Sync module +
1x PCIe Gen5 x8 FHHL
c. 2x PCIe Gen5 x16 FH 3/4L

1x PCIe Gen5 x16 FHHL

1x OCP3.0
Network card

2x E1.S

8x DDR5 DIMM slots

FEC**

6x hot-swap fans

2x M.2

5th/4th Gen
Intel® Xeon® Scalable processors

* For 8/4 ports SKU only. ** For 8/4 ports SKU is default. For PCIe SKU is optional.

Features

8 ports SKU

4 ports SKU

- Highly integrated (FEC/Time Sync) DU solution.
- Cost-optimized DU solution.
- Optimized thermal design, -5℃ ~ 65℃ operation temperature.

PCIe SKU

- 1U small form factor with 4x PCIe slots.
- 2x FH3/4L slots capable for FPGA/GPU/Double deck PCIe cards, flexible for inline or look aside acceleration cards.
- Easy service with front I/O and hot-swap fans.

SKU	Integrated 8 ports	Integrated 4 ports	PCIe SKU
CPU	(1) 5th/4th Gen Intel® Xeon® Scalable processor (including Sapphire Rapids-EEC)		
Memory	(8) DDR5 DIMMs, speeds up to 5600MT/s		
Onboard Storage	(2) M.2, PCIe Gen3 x4		
Storage Bays	(2) E1.S SSD		
Expansion Slots	(1) Intel® vRAN Accelerator ACC100 module (1) 8 x SFP28 Time Sync module-1588 PTP/SyncE supported (1) PCIe x16 slot (Gen5 x16 link) (FHHL) (1) OCP 3.0 slot (Gen5 x16 link)*	(1) Intel® vRAN Accelerator ACC100 module (1) 4 x SFP28 Time Sync module -1588 PTP/SyncE supported (1) PCIe x8 slot (Gen5 x16 link) (FHHL) (1) PCIe x16 slot (Gen5 x16 link) (FHHL) (1) OCP 3.0 slot (Gen5 x16 link)*	Standard PCIe Expansion (2) PCIe x16 slots (Gen5 x16 link) (FH4/3L) (1) PCIe x16 slot (Gen5 x16 link) (FHHL) (1) OCP 3.0 slot (Gen5 x16 link)* * OCP 3.0 slot will be disable when using SPR-EE CPU.
BMC Solution	BMC support with share on board NIC i210 AST2600 BMC used		
Management LAN	(1) 10/100/1000Mbps RJ45		
Front I/O Ports	(1) Management port (2) USB 3.0 ports (1) Display port (1) Mini USB 2.0 port (2) SMA-1PPS (1) SMA-Antena (1) RJ45 for G.703 (8) SFP28 ports	(1) Management port (2) USB 3.0 ports (1) Display port (1) Mini USB 2.0 port (2) SMA-1PPS (1) SMA-Antena (4) SFP28 ports	(1) Management port (2) USB 3.0 ports (1) Display port (1) Mini USB 2.0 port
System Power	1+1 redundant 1300W slim AC/DC PSU		
System Fans	(6) 4056 hot-swap dual-rotor fans		
Dimension (W x H x D)	Standard 1U Chassis 440 x 44 x 430 mm 17.3 x 1.73 x 16.9 inch		
Environment	Operating Temperature: -5℃~65℃ Operation hunidity: 10% ~ 90% (non-condensing) Non-operating Temperature: -40℃~85℃ Non-operating Humidity: 5% ~ 95% (non-condensing)		