

SKY-8132S-11

Ultra-short Depth 1U Edge Server based on 3rd Gen Intel Xeon Scalable Processor

Preliminary



Features

- 1U 11" depth rackmount server for 5G Open RAN and edge computing
- Single 3rd Gen Intel® Xeon® Scalable Processor supporting Platinum, Gold and Silver SKUs
- 8x DIMM sockets for DDR4 3200MHz RDIMM
- 2x PCIe Gen4 x16 FH|HL and 1x PCIe Gen4 x16 LP slots
- 2x M.2 2280 SATA3/NVMe SSD
- Customizable Telecom Alarm Module
- IPMI 2.0 and Redfish compliant system management with reliability and security enhancements
- Up to -40 ~ 65 °C operating temperature range
- IP65 pole-mount or street side cabinet option



Introduction

The Advantech SKY-8132S-11 is a highly efficient, carrier-grade edge server designed to balance best-in-class Intel Xeon Scalable processing with maximum I/O and offload density in an 11" ultra-short depth chassis. The system is a power optimized, robust platform that provides superior reliability in critical applications including, but not limited to 5G Open RAN and multi-access edge computing (MEC). The power and cooling options along with the streamlined mechanical design make it ideal for demanding telco edge deployments requiring high performance acceleration such as the Intel ACC100.

Architected around 3rd Gen Intel Xeon Scalable processors, the single-socket SKY-8132S-11 combines cutting-edge performance with the ruggedness, reliability, and long system lifecycles required by the industry. The SKY-8132S has been optimized for the 5G intelligent edge to integrate the required vRAN acceleration, I/O and time synchronization technology while optimizing performance per watt. This becomes essential to support compute-intensive 5G NR outdoor macrocell vDU use cases and advanced massive MIMO antenna systems.

The SKY-8132S-11 supports extreme wide range operating temperature and environmental shock, vibration and dust conditions. Redundant DC power supplies, the ability to withstand single fan failures, redundant BIOS and firmware images with failsafe remote updates and hot swappable FRUs make the SKY-8132S-11 the platform of choice for applications requiring virtually zero downtime. The SKY-8132S-11 is designed for NEBS Level 3 carrier grade environments where limited space is available including front accessible network and power interfaces and IP65 pole mount, roadside unit or streetside cabinet configurations.

Specifications

Processor System	CPU	Single socket 3rd Generation Intel® Xeon® Scalable Processor up to 36 cores, 225W TDP	
	Chipset	Intel PCH C62xA series	
Memory	Technology	Up to 8x 3200MHz DDR4 RDIMM/LRDIMM with ECC	
	Max Capacity	Max capacity per channel: 64GB Max total capacity per system: 512GB	
	Socket	8 x 288-pin DDR4 DIMM	
PCIe	Expansion slot	Front	2x PCIe 4.0x16 (FH HL)
		Rear	1x PCIe 4.0x16 (LP)
IO and LEDs	Front IO and LEDs	PWR, fan status, and alarm LEDs, 1 x console port, 2 x GE fiber ports (1 x management port), 2 x USB3.0 ports, and Telco alarm interface	
	Rear IO	None	
Ethernet	Management Interface	NC-SI (BMC to I210-IS)	
	10/25GbE Ethernet	Via Add-on PCIe card	
	Controller	GbE LAN: Intel i210-IS support	
	Connector	2 x SFP ports	
Storage		2 x SATA3/PCIe M.2 2280 module 1x 2.5" SATA3/NVMe U.2 SSD (depends on SKU)	
	Power	Input	1+1 redundant DC input feeds (A and B @-38V _{DC} ~ -72V _{DC}) 800W D/D power brick Optional field replaceable 1+1 DC power supply units (@-38V _{DC} ~ -72V _{DC})
Environment	Temperature	Operating	Non-operating
		-40-65°C (-40-149°F)	-40 ~ 70°C (-40 ~ 158°F)
	Humidity	50% @25°C to 95% @40°C (non condensing)	95% @60°C (non-condensing)
Cooling	Chassis Fan	9 x High Speed Fans	
	Thermal Control	Two separate thermal zones, one for payload and the other for power input, controlled by Advantech BMC solution	
	Redundancy	Resilient to single fan failure (depends on CPU model and configuration)	
	Air Filter	ODM customizable	
System Management	IPMI2.0 and Redfish API	<ul style="list-style-type: none"> ▪ Aspeed AST2500 BMC with Advantech System Management Solution ▪ Advanced Lights Out Management compliant to IPMI2.0 with security and availability enhancements ▪ Redfish API support ▪ iKVM Support Advantech Web GUI style Node Manager ▪ Configurable shared or dedicated NIC support 	
		Physical	Dimensions (W x D x H)
	Net Weight	Approximately 8kg	

Dimensions

Unit: mm [inch]



Front View



Rear View



Ordering Information

Part Number	Description
SKY-8132SAS-11-0001E	11" 1U server, single 3 rd Gen Xeon® Scalable Processor, redundant DC power inputs, 1x hotswappable SATA/NVMe 2.5" SSD, 2x SATA/NVMe M.2 storage modules, 2x FH/FL and 1x LP PCIe Gen4 slots, standard system heatsink
SKY-8132SAS-11-0002E	Same configuration as above with an additional redundant field replaceable DC power supply unit (2.5" SSD removed)
SKY-8132SAX-11-0001E	13" 1U server, single 3 rd Gen Xeon® Scalable Processor, redundant DC power inputs, 1x hotswappable SATA/NVMe 2.5" SSD, 2x SATA/NVMe M.2 storage modules, 2x FH/FL and 1x LP PCIe Gen4 slots, advanced system heatsink
SKY-8132SAX-11-0002E	Same configuration as above with an additional redundant field replaceable DC power supply unit (2.5" SSD removed)

Optional Accessories

Part Number	Description
To be defined	Intel Ethernet Network Adapter E810-XXVDA4T Quad Port SFP28 with IEEE 1588 PTP, SyncE and optional GNSS
1700033056-01	2 meter long DC power cable (for A+B redundant power feeds)
SKY-ACC100-P3IMBM	Silicom ACC100 FEC Accelerator card (mfg. p/n P3iMB-M-P2)