SKY-8101D

Compact 1U High Performance Server based on Intel® Xeon® Processor Scalable Family

Features

- 1U 29.5" deep rackmount server
- Dual Intel® Xeon® Platinum, Gold, Silver or Bronze Processor
- 24x DIMM sockets support up to 1536 GB DDR4 1600/1866/2133/2400/2666 MHz SDRAM (ECC/RDIMM/LRDIMM)
- Rich Add-In Card Support: Up to four FH/¾L PCIe x16 Gen3 slots
- Up to 4x 2.5" hot-swappable HDD/SSD drives
- 2x M.2 2280 SATA SSD
- IPMI 2.0-compliant management with reliability and security enhancements

CB CE FCC (UL) (CCC)

Introduction

The Advantech SKY-8101D is a highly configurable high performance server designed to balance the best in x86 server-class processing with maximum I/O and offload density in a 1U 29.5" depth chassis. The system is a cost effective, robust platform optimized for superior reliability in business critical applicationssuch as communications, edge and industrial high performance computing. It is specifically designed for high density PCIe card payloads where maximum IO connectivity is needed or the integration of industry leading offload and acceleration technology is essential. The power and cooling options along with the streamlined mechanical design make it ideal for demanding applications requiring high performance acceleration technologies such as GPU, DSP and FPGA cards.

Architected around the new Intel® Xeon® Processor Scalable Family, the dual socket SKY-8101D combines cutting-edge performance with the ruggedness, reliability, and long system lifecycles required by the industry. With integrated security and compression offload based on Intel® QuickAssist technology and two 10GbE ports with SR-IOV and RDMA support, the system offers best-in-class integration in a compact form factor.
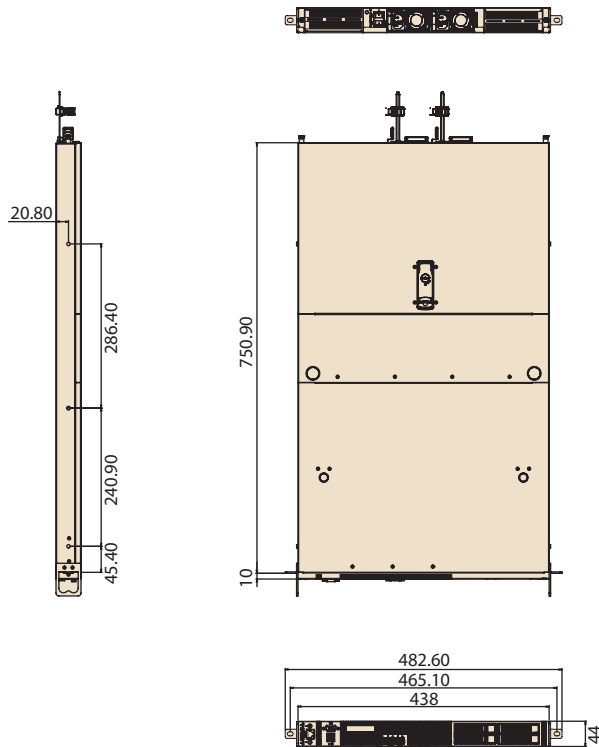
The SKY-8101D accommodates up to four 10.5" PCIe x16 Gen3 adapters, designed for applications requiring high TDP, high speed networking capacity or longer length add-on cards. The server can significantly scale the bandwidth up and provide better cost advantages for applications such as NFV infrastructure requiring up to 400Gbps throughput, high definition multi-stream video processing and AI workloads leveraging high density FPGA offload adapters. Redundant power supplies, the ability to withstand single fan failures, redundant firmware images with failsafe upgrades and hot swappable FRUs make the SKY-8101D the platform of choice for applications requiring zero downtime. Interoperability testing is performed with a wide selection of Advantech and third-party PCIe card vendors in order to accelerate integration and shorten time to deployment.

Specifications

Processor System	CPU	Dual CPU from the New Intel® Xeon® Processor Scalable Family up to 28 cores, 165W
	Chipset	Intel® C622 chipset (optional variants with C625 and C626)
Memory	Technology	Up to 24x 2666MHz DDR4 ECC Standard ECC RDIMM/LRDIMM
	Capacity	Max capacity per channel: 64GB Max total capacity per system: 1536GB
	Socket	24x 288-pin DIMM
PCIe	Expansion slots	Total 4x PCIe x16 (FH/¾L) slots
IO	Front IO	1x PWR button, 1x ID button, 2x USB3.0/2.0, 1x RJ45 console, 5x LEDs (Power, ID, 3x SW definable), 1x VGA port, 2x 10GbE SFP+
	Rear IO	2x GbE LAN RJ45, 2x hole ground lug
Ethernet	Gigabit Ethernet Interface	10/100/1000 Mbps
	10 Gigabit Ethernet Interface	1Gbps / 10Gbps
	Controller	GbE LAN1: Intel i210-AT, GbE LAN2: Intel i210-AT 10GbE SFP+ LAN1/2: OCP Mezzanine card SFI (from PCH)
	Connector	2x RJ-45, 2x SFP+
Storage		4x 2.5", hot-swappable, SAS/SATA HDD/SSD trays in front (SAS drives supported via HBA/RAID adapter on PCIe slots) 2x M.2 2280 SATA SSD
Power Supply	Power Rating	1200W red. AC PSU / (Optional) 800W red. AC PSU
	Input	(AC) 200-240Vac, 7.08A, 47-63Hz
Environment	Humidity Operational (non-condensing)	5% to 85%
	Operational Temperature	0°C (32°F) to 40°C (104°F)
	Storage Temperature	–40°C (-40°F) to 70°C (158°F)
Cooling	Chassis Fan	Six 40 x 56 mm replaceable, hot swappable fans
	Thermal Control	Three separate thermal zones for motherboard and PCIe cards
	Reliability	Resilient to single fan failure
System Management	IPMI	Aspeed AST2500 BMC Advanced Lights Out Management compliant to IPMI2.0 with security and availability enhancements iKVM Support Configurable shared or dedicated NIC support
Physical	Dimension (W x D x H)	438.00 x 749.7 x 44.20 mm (17.24" x 29.50" x 1.74")
	Weight (N.W.)	20kg

ADVANTECH **High Performance Servers**

Dimensions

20.80

286.40

240.90

45.40

750.90

10

482.60
465.10
438

44

Front View

Rear View

Ordering Information

Part Number	Description
SKY-8101DAS-0000E	29.5" 1U server w GSMB-8101D, dual Intel® Xeon® Processor, Intel® C622 chipset, AC 1200W PSU, 4 x 2.5" SSD/HDD, 4x FH/¾L slots

Optional Accessories

Part Number	Description
1702002600-02	Power Cord 3P UL/CSA(USA) 125V 10A 1.83M 180D
1702002605-02	Power Cord 3P European 10A/16A 250V 1.83M 90D
1700000237-01	Power Cord 3P PSE 12A 125V 1.83M Japan