SKY-8201L

Compact 2U High Capacity Storage Server based on Intel® Xeon® Processor Scalable Family

Features

- 2U 27.5" deep rackmount server
- Dual Intel® Xeon® Platinum, Gold, Silver or Bronze Processor (Up to 205W TDP)
- 16x DIMM sockets support up to 1024GB DDR4 2666 / 2933 MHz DDR4 (ECC/RDIMM/LRDIMM)
- Rich Add-In Card Support: Up to four FH/FL PCIe x8 Gen3 slots, two FH/HL PCIe x8 Gen3 (Optional: four FH/FL PCIe x16 Gen3 slots) , plus two LP PCIe x8 Gen3 slot, or Advantech Personalization card
- Up to 12x 3.5" or 24x 2.5" hot-swappable HDD/SSD drives and optional 4x 2.5" NVMe SSD drives
- 1x M.2 2280 SATA SSD
- IPMI 2.0-compliant management with reliability and security enhancements
- **Intel Select Solutions for NFVi Gen2 certified**

Introduction

The Advantech SKY-8201L is a highly configurable high performance server designed to balance the best in x86 server-class processing with maximum storage, I/O and offload density in a 2U 27.5" depth chassis. The system is a cost effective, robust platform optimized for superior reliability in business critical applications such as communications, edge and industrial high performance computing. It is specifically designed for high density PCIe card payloads where maximum I/O 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 acceleration technologies such as GPU, DSP and FPGA cards.

Architected around the new Intel® Xeon® Processor Scalable Family, the Dual-socket SKY-8201L combines an unprecedented choice of performance levels from 6 to 28-cores 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 onboard 10GbE ports with SR-IOV and RDMA support, the system offers best-in-class integration in a compact form factor.

Specifically designed for applications requiring higher capacity, front loading, hot-swappable storage with RAID support, the SKY-8201L accommodates up to twelve 3.5" or twenty-four 2.5" removable drive bays at the front of the system, eight/twenty of which support SATA/SAS connectivity and a further four optional 2.5" NVMe drives, each connected to a PCIe Gen3 x4 Intel OCuLink bus. With support for Intel® VROC hybrid NVMe and SATA RAID, the server is ideal for video caching and edge transcoding, data acquisition, storage and processing as well as accelerated edge processing and analytics. The SKY-8201L meets a variety of acquisition, preprocessing and forwarding performance needs and can operate in environments with limited space, higher ambient temperature and lower low noise level constraints.

The SKY-8201L is designed to withstand extended environmental conditions in terms of shock, vibration and operating temperature. Redundant power supplies, the ability to withstand single fan failures, redundant firmware images with failsafe upgrades and hot swappable FRUs all make the SKY-8201L 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, 205W	
	Chipset	Intel® C622 chipset (optional variants with C625, C626, C627, and C628)	
Technology	Technology	Up to 16x 2666/2933MHz DDR4 ECC Standard ECC RDIMM/LRDIMM	
	Max Capacity	Max capacity per channel: 64GB Max total capacity per system: 1024GB	
	Socket	16x 288-pin DIMM	
PCIe	Expansion slot	Total 4x rear PCIe x8 (FH/FL) or 2x rear PCIe x16 (FH/FL), 2x rear PCIe x8 (FH/HL), plus 2x rear PCIe x8 (LP) or 2x rear PCIe x8 expansion slot for Advantech Personalization card.	
IO	Front IO	2x USB2.0, PWR, Status LEDs	
	Rear IO	2x GbE LAN RJ45(Management ports), 1x Display port, 1xVGA, 2x USB3.0/2.0, 2x 10GE SFP+	
Ethernet	Management Interface	10/100/1000 Mbps	
	10GbE Ethernet Interface	1Gbps / 10Gbps	
	Controller	GbE LAN1: Intel i210-AT, GbE LAN2: Intel i210-AT 10GbE SFP+ LAN1/2: Integrated into PCH, with SR-IOV and RDMA support	
	Connector	2x RJ-45, 2x SFP+	
Storage	SKY-8201L1 SKU	12x 3.5", front hot-swappable, SAS/SATA HDD/SSD trays (SAS drives supported via HBA/RAID adapter on PCIe slots), additional 4x 2.5" front hot-swappable NVMe SSD trays on SKY-8201L1	
	SKY-8201L2 SKU	24x 2.5", front hot-swappable, SAS/SATA HDD/SSD trays (SAS drives supported via HBA/RAID adapter on PCIe slots), additional 4x 2.5" front hot-swappable NVMe SSD trays on SKY-8201L2.	
Power	Input	Two 1200W (1+1) redundant AC PSU (AC) 100–240Vac, 50–60Hz, 12–6A, per PSU	
	Output Current Rating	1200W, Max: +12V/70A, +5Vsb/3A, per PSU	
Environment		Operating	Non-operating
	Temperature	0 ~ 40 °C (32 ~ 104 °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	Four replaceable fans	
	Thermal Control	Two separate thermal zones for motherboard and Full Length (FL) PCIe cards	
	Reliability	Resilient to single fan failure	
System Management	IPMI	Aspeed AST2500 BMC Advanced Lights Out Management compliant to IPMI2.0 with security & availability enhancements iKVM Support Advantech Web GUI style node manager Configurable shared or dedicated NIC support	
Physical	Dimension (W x D x H)	438.4 x 699.8 x 88.1 mm (17.26" x 27.5" x 3.46")	
	Weight (N.W)	~25kg	

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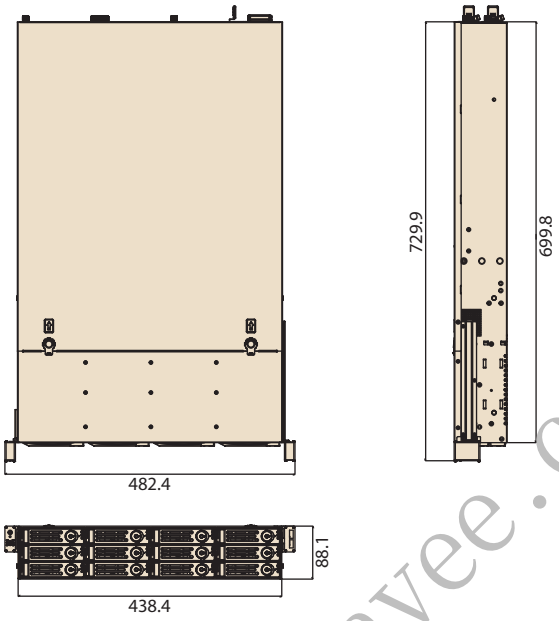
All product specifications are subject to change without notice.

Dimensions

Unit: mm



Front View

SKU1 (SKY-8201L1)

SKU2 (SKY-8201L2)

Rear View

Ordering Information

Part Number	Description
SKY-8201LAS-0010E	27.5" 2U server w Dual Intel® Xeon® Processor, Intel® C622 chipset, AC 1200W PSU, 12 x 3.5" SSD/HDD slots, 4x 2.5" NVMe SSD slots, 4 x FH/FL slots, 2 x FH/HL slots, 2 x LP slots
SKY-8201LAS-0020E	27.5" 2U server w Dual Intel® Xeon® Processor, Intel® C622 chipset, AC 1200W PSU, 24 x 2.5" SSD/HDD slot, 4x 2.5" NVMe SSD slots, 4 x FH/FL slots, 2 x FH/HL slots, 2 x LP slots
SKY-8201LAS-0016E	27.5" 2U server w Dual Intel® Xeon® Processor, Intel® C622 chipset, AC 1200W PSU, 12 x 3.5" SSD/HDD slots, 4 x FH/FL PCIe x16 slots, 2 x LP slots
SKY-8201LIS-IS02E	Intel® Select Solution for NFVi SKU 27.5" 2U server w Dual Intel® Xeon® Platinum 8160(T) Processor, Intel® C628 chipset, AC 1200W PSU, 12 x 3.5" SSD/HDD slots, 4x 2.5" NVMe SSD, 2x SSD ,1x PCIE-2320(XL710 for 40GbE QSFP+). 4 x FH/FL slots, 2 x FH/HL slots, 2 x LP slots

Advantech Pers Card Options

Part Number	Description
PCIE-1220PS-00A1E	Dual 10GbE X710 w. 2x SFP+
PCIE-1221PS-00A1E	Dual 10GBASE-T w. X550
PCIE-1130PS-00A1E	Quad GbE i350 w. 4x RJ45
PCIE-1131PS-00A1E	Quad GbE i350 w. 4x SFP
PCIE-2320NP-00A1E	2-ports 40G (QSFP+) NIC w/ Intel XL710

Packing List

Part Number	Description	Qty
968AE00064	27.5" slide rail (pair) for SKY-8201L	1
1700012372-11	Console cable	1

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
1702031801	Power Code 3P (UK) 5A-Fuse 183cm
1700000237-01	Power Cord 3P PSE 12A 125V 1.83M Japan

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