SKY-8201

Compact 2U Carrier Grade, High Performance Server based on Intel® Xeon® Processor Scalable Family

Features

- 2U 20" deep rackmount server
- Dual Intel® Xeon® Platinum, Gold, Silver or Bronze Processor (Up to 165W TDP)
- 16x DIMM sockets support up to 1024GB DDR4 1600/1866/2133/2400/2666 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 slots (Optional: four FH/FL PCIe x16 Gen3 slots) , plus two LP PCIe x8 Gen3 slot or Advantech Personalization card
- Up to 4x 2.5" hot-swappable HDD/SSD drives
- 1x M.2 2280 SATA SSD
- IPMI 2.0-compliant management with reliability and security enhancements

Introduction

The Advantech SKY-8201 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 20" depth chassis. The system is a cost effective, robust platform optimized for superior reliability in business critical applications including, but not limited to, 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-8201 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 onboard 10GbE ports with SR-IOV and RDMA support, the system offers best-in-class integration in a compact 2U, 20" deep form factor.

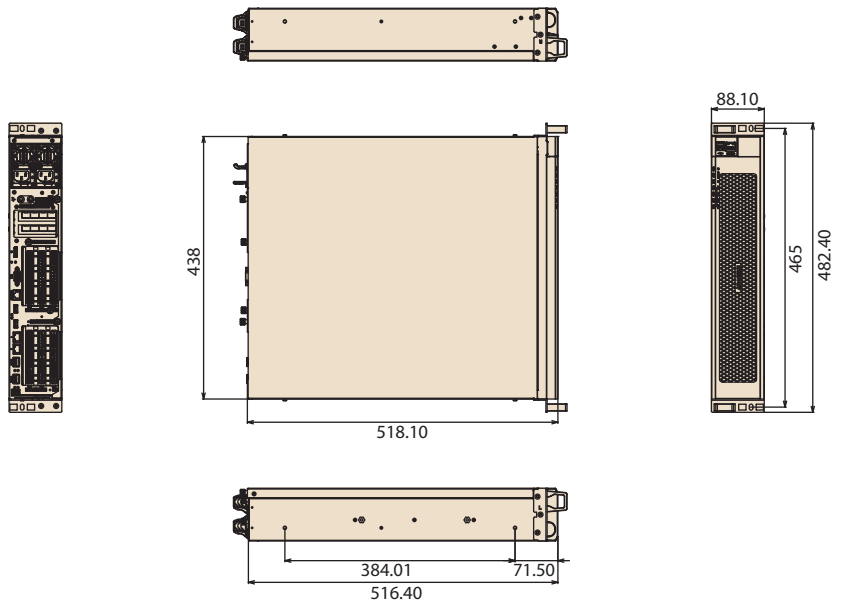
The SKY-8201 is designed to withstand extended environmental conditions in terms of shock, vibration and operating temperature. A replaceable front air filter is supported to cope with dust. Redundant power supplies, the ability to withstand single fan failures, redundant firmware images with failsafe upgrades and hot swappable FRUs make the SKY-8201 the platform of choice for applications requiring zero downtime. The SKY-8201 is designed for NEBS Level 3 carrier grade environments and where limited rack space is available. Interoperability testing is performed with a wide selection of third-party PCIe card vendors.

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, C626, C627, and C628)	
Technology	Technology	Up to 16x 2400/2666MHz 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 4 x rear PCIe x8 (FH/FL) and 2 x rear PCIe x8 (FH/HL) or 2 x rear PCIe x16 (FH/FL), plus 2 x rear PCIe x8 (LP) or 2 x rear PCIe x8 expansion slot for Advantech Personalization card	
IO	Front IO	2 x USB2.0, PWR, ID Button, Status LEDs	
	Rear IO	2 x GbE LAN RJ45(Management ports), 1 x Display port, 1 x VGA, 2 x USB3.0/2.0, 2 x 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	2 x RJ-45, 2 x SFP+	
Storage	SKY-8201 SKU	4 x2.5" HDD/SSD	
Power	Input	1400W AC/DC PSU (AC) 100-240V_{AC}, 12-10A, 50-60Hz (DC) -36--72V_{DC}, 40-25A	
	Output Current Rating	1200W, Max: +12V/70A, +5Vsb/3A, per PSU	
Environment		Operating	Non-operating
	Temperature	-5 ~ up to 55 °C (23 ~ 131 °F) Depends on CPU model and configuration	-40 ~ 70°C (-40 ~ 158 °F)
	Humidity	50% @ 25 °C to 95% @ 40 °C (non condensing)	95% @ 60 °C (non-condensing)
Cooling	Chassis Fan	6 x 80 x 38 high speed fan	
	Thermal Control	Two separate thermal zones for motherboard and Full Length (FL) PCIe cards	
	Reliability	Resilient to single fan failure	
	Air Filter	Yes	
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)	430 x 508 x 88.6 mm (16.9" x 20" x 3.48")	
	Weight (N.W)	~17kg	

Dimensions

Unit: mm



Front View

Rear View

Ordering Information

Part Number	Description
SKY-8201SAS-0010E	20" 2U server w Dual Intel® Xeon® Processor, Intel® C622 chipset, AC 1400W PSU, 4x 2.5" HDD/ SSD slot, 4 x FH/FL slots, 2 x FH/HL slots, 2 x LP slots
SKY-8201SAS-0001E	20" 2U server w Dual Intel® Xeon® Processor, Intel® C622 chipset, DC 1400W PSU, 4x 2.5" HDD/ SSD slot, 4 x FH/FL slots, 2 x FH/HL slots, 2 x LP slots
SKY-8201SAS-0016E	20" 2U server w Dual Intel® Xeon® Processor, Intel® C622 chipset, AC 1400W PSU, 4x 2.5" HDD/ SSD slots, 4 x FH/FL PCIe x16 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

Packing List

Part Number	Description	Qty
9680016959	22" Rail Kit for 438mm chassis	1
1700012372-11	Console cable	1
1700024872-11	Power cord Cable 2*3P-5.0 180cm for SKY-8201(for DC version only)	2

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