SKY-8211

2U High Performance Edge Server based on Intel® Xeon® Processor Scalable Family

Features

- 2U 430mm deep rackmount server with an operating temperature of -20 to 70 °C
- Single Intel® Xeon® Platinum, Gold, Silver or Bronze Processor
- 6 x DIMM sockets support up to 384GB DDR4 2133/2400/2666 MHz SDRAM (ECC/RDIMM/LRDIMM)
- Rich I/O LAN port available
- 1 x M.2 2280 SATA SSD
- IPMI 2.0-compliant management with reliability and security enhancements
- Optimized platform design for Industrial and Business Critical Robustness

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Introduction

The SKY-8211 series represents the next generation of white box servers designed to replace proprietary routers and gateways with an open programmable off-the-shelf platform entirely based on processors and network interfaces from Intel. When deployed as virtual routers they provide the functionality of legacy, fixed-function routers with more flexibility and lower cost. The platforms are ideal for software defined networking deployment and are based on the highly versatile Intel Xeon Processor Scalable series enabling high performance control and dataplane processing. With multiple front facing ethernet ports connected to a cost optimized planar PCIe board the platforms eliminate the need for multiple PCIe cards and offer all the physical connectivity advantages of an off-the-shelf enterprise or provider edge router. Together with software from leading ecosystem partners the SKY-8211 becomes the first modular programmable switch to eliminate specialized dataplane processing using non-Intel Architecture components.
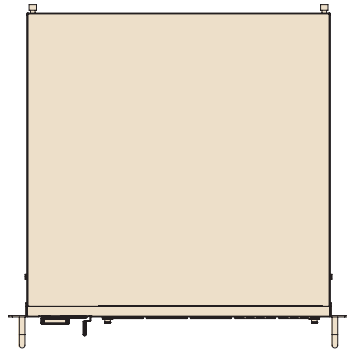
The SKY-8211's are essentially highly configurable high performance servers designed to balance the best in x86 server-class processing with maximum I/O and offload density in a 2U 430mm depth chassis. The system is a cost effective, robust platform optimized for superior reliability in business critical applications such as communications, edge and industrial high performance computing. It is specifically designed to meet high density I/O connectivity and wide operation temperature. The power and cooling options along with the streamlined mechanical design make it ideal for demanding applications requiring a -20 °C to 70 °C environment. The SKY-8211 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.Architected around the new Intel® Xeon® Processor Scalable Family, the single-socket SKY-8211 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, the system offers best-in-class integration in a compact form factor.The SKY-8211 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, and redundant firmware images with failsafe upgrades make the SKY-8101 for reliable. The front hot swappable FRUs and I/O ports makes the SKY-8211 the platform of choice for fast and simple service. For more details please contact your Advantech local sales representative.
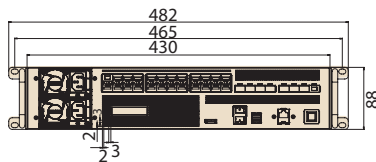
Specifications

Processor System	CPU	Single CPU from the New Intel® Xeon® Processor Scalable Family
	Chipset	Intel® C621 chipset (optional variants with C622, C626, and C627)
Memory	Technology	Up to 6x 2666MHz DDR4 ECC Standard ECC RDIMM/LRDIMM
	Max Capacity	Max capacity per channel: 64GB / Max total capacity per system: 384GB
	Socket	6 x 288-pin DIMM
IO	Front I/O	SKY-8211B: 8 x 10GbE, 24 x 1GbE ports, 1 x RJ45 console port, 2 x GbE LAN RJ45 (management ports), 1 x Display port, 2 x USB3.0/2.0 / SKY-8211F: 16 x 10GbE, 8 x 1GbE ports, 1 x RJ45 console port, 2 x GbE LAN RJ45 (management ports), 1 x Display port, 2 x USB3.0/2.0
Ethernet	Management Interface	10/100/1000 Mbps
	10GbE Ethernet Interface	1Gbps / 10Gbps
	1GbE Ethernet Interface	1Gbps
	Controller	GbE LAN1 (mgmt): Intel I210-AT, GbE LAN2 (mgmt): Intel I210-AT / 10GbE SFP+ LAN: Intel XL710 / 1GbE SFP LAN: Intel I350
	Connector	SKY-8211B: 2 x RJ45 (GbE LAN mgmt), 8 x SFP+ (10GbE SFP+ LAN), 24 x SFP (1GbE SFP LAN) / SKY-8211F: 2 x RJ45 (GbE LAN mgmt), 16 x SFP+ (10GbE SFP+ LAN), 8 x SFP (1GbE SFP LAN)
Storage		1 x M.2 2280 SATA SSD
Power	Input	Two (1+1) redundant hot-swappable 550W PSU / (AC) 100 ~ 240V_AC, 8 ~ 4A, 50 ~ 60Hz / (DC) -48V_DC, 12A
	Output Current Rating	550W, Max: +12V/44A, +12Vsb/2.1A, per PSU

		Operating	Non-operating
Environment	Temperature	-20 ~ 70 °C (-4 ~ 158 °F)	-40 ~ 70 °C (-40 ~ 158 °F)
	Humidity	50% @ 25 °C to 95% @ 40 °C (non condensing)	95% @ 60 °C (non-condensing)

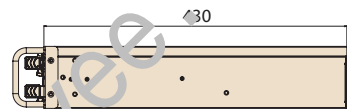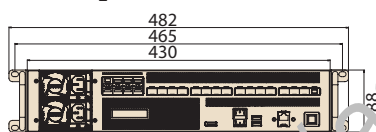|		
Cooling	Chassis Fan	Four 80 x 38 mm fans
	Thermal Control	Two separate thermal zones for motherboard and PSU
	Reliability	Resilient to single fan failure
	Air Filter	NA
System Management	IPMI	Aspeed AST2500 BMC / Advanced Lights Out Management compliant to IPMI2.0 with security & availability enhancements / iKVM SupportAdvantech Web GUI style node manager / Configurable shared or dedicated NIC support
Physical	Dimension (W x D x H)	430 x 430 x 88 mm (16.93" x 16.93" x 3.46")
	Weight (N.W)	15kg

ADVANTECH

Dimensions

Unit: mm

SKY-8211B

482
465
430

88

2
2 3

430

SKY-8211F

482
465
430

88

Front View

SKY-8211B

SKY-8211F

Rear View

Ordering Information

Part Number	Description
SKY-8211BS-0001E	2U 430mm deep server, single IntelR XeonR Processor 4116T, IntelR C621 chipset, 1+1 redundant DC 550W PSU, 8 x 10G SFP+ ports, 24 x 1G SFP ports, 6x DDR4 2400MHz 4GB memory, 1x 256G M.2 2280 SSD
SKY-8211FS-0001E	2U 430mm deep server, single IntelR XeonR Processor 6130T, IntelR C621 chipset, 1+1 redundant DC 550W PSU, 16 x 10G SFP+ ports, 8 x 1G SFP ports, 6x DDR4 2400MHz 8GB memory, 1x 256G M.2 2280 SSD
SKY-8211BS-0000E	2U 430mm deep server, single Intel® Xeon® Processor slot, Intel® C621 chipset, 1+1 redundant DC 550W PSU, 8 x 10G SFP+ ports, 24 x 1G SFP ports, 1 x M.2 2280 slot
SKY-8211BS-0010E	2U 430mm deep server, single Intel® Xeon® Processor slot, Intel® C621 chipset, 1+1 redundant AC 550W PSU, 8 x 10G SFP+ ports, 24 x 1G SFP ports, 1 x M.2 2280 slot
SKY-8211FS-0000E	2U 430mm deep serve, single Intel® Xeon® Processor slot, Intel® C621 chipset, 1+1 redundant DC 550W PSU, 16 x 10G SFP+ ports, 8 x 1G SFP ports, 1 x M.2 2280 slot
SKY-8211FS-0010E	2U 430mm deep server, single Intel® Xeon® Processor slot, Intel® C621 chipset, 1+1 redundant AC 550W PSU, 16 x 10G SFP+ ports, 8 x 1G SFP ports, 1 x M.2 2280 slot

Optional Accessories

Part Number	Description
1700025629-01	Cable, Display Port to D-Sub (VGA) 150cm
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
1700028676-01	DC Power Cord 1*3P-5.0/Z-TEM 200CM for SKY-8211