

# SKY-7221

## 2U High Performance Rackmount Server with Intel Xeon Scalable Processor Family



### Features

- Ideal for hyperconverged storage, software-defined storage, and high end enterprise server
- Variety of storage sku options: up to 12/16 bays 3.5" or 24 bays 2.5" hot-swap SATA/SAS/NVMe drives support
- Dual socket P 2nd Gen. Intel Xeon Scalable Processors support
- 24 DIMM slots support up to 3TB ECC DDR4-2933Mhz RDIMM/LRDIMM
- Highly scalable IO options: up to 4 FHHL PCIe Gen3 x8 and 1 FHHL PCIe Gen3 x16; or 2 FHHL PCIe Gen3 x8 and 2 FHHL PCIe Gen3 x16
- 2 M.2 2280 SATA SSD support for boot drive
- 1 OCP 2.0 PCIe Gen3 x16 NIC support



### Specifications

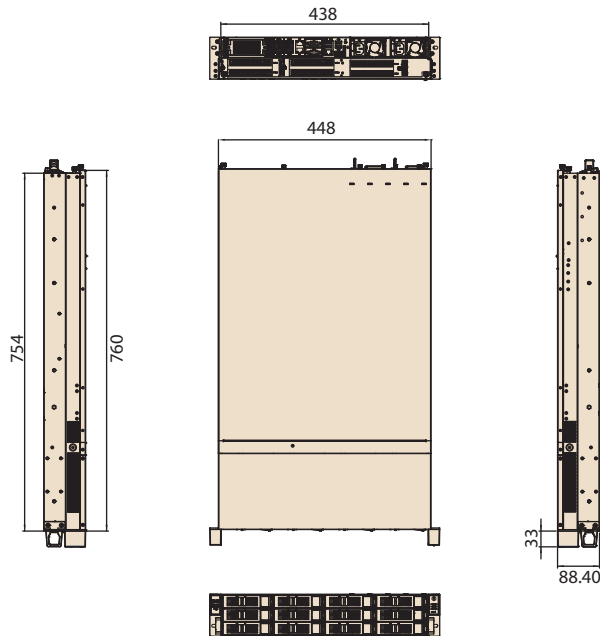
System P/N		SKY-7221D3A-12A1R	SKY-7221D3S-12P8R	SKY-7221D3S-16C1R
Form Factor		2U12	2U12	2U16
Processor	Processor Type	2nd Gen. Intel® Xeon® Scalable Processors (Cascade Lake/Skylake)	2nd Gen. Intel® Xeon® Scalable Processors (Cascade Lake/Skylake)	2nd Gen. Intel® Xeon® Scalable Processors (Cascade Lake/Skylake)
	Max. TDP Support	205W	205W	165W
	Number of Processors	2	2	2
	Cores	up to 28 cores	up to 28 cores	up to 28 cores
	Internal Interconnect	9.6/10.4 GT/s	9.6/10.4 GT/s	9.6/10.4 GT/s
Chipset		Intel C621	Intel C624	Intel C624
Memory	Memory Capacity	24 DIMM slots, up to 3TB (128Gx24) of memory for RDIMM/LRDIMM	24 DIMM slots, up to 3TB (128Gx24) of memory for RDIMM/LRDIMM	24 DIMM slots, up to 3TB (128Gx24) of memory for RDIMM/LRDIMM
	Memory Type	2933†/2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM	2933†/2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM	2933†/2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM
Storage	3.5"/2.5" HDD/SSD	12 Hot-swap 3.5" drive bays; 12 SATA3 ports by default; 2 M.2 SATA3	12 Hot-swap 3.5" drive bays; 12 SAS ports by default (Note 1); 2 M.2 SATA3	16 Hot-swap 3.5" drive bays; 16 SATA3/SAS ports by default (Note 2); 2 M.2 SATA3
		Optional 8 SATA3 + 4 NVMe	Optional 8 SATA3/SAS + 4 NVMe	Optional 12 SATA3/SAS + 4 NVMe
Expansion slots		[SKU #1] 1 PCI-E Gen3 x16 (FH/FL) 4 PCI-E Gen3 x8 (LP) 1 PCI-E Gen3 x16 OCP 2.0 NIC	[SKU #1] 1 PCI-E Gen3 x16 (FH/FL) 4 PCI-E Gen3 x8 (LP) 1 PCI-E Gen3 x16 OCP 2.0 NIC	[SKU #1] 1 PCI-E Gen3 x16 (FH/FL) 4 PCI-E Gen3 x8 (LP) 1 PCI-E Gen3 x16 OCP 2.0 NIC
		[SKU #2] 2 PCI-E Gen3 x16 (FH/FL) 2 PCI-E Gen3 x8 (LP) 1 PCI-E Gen3 x16 OCP 2.0 NIC	[SKU #2] 2 PCI-E Gen3 x16 (FH/FL) 2 PCI-E Gen3 x8 (LP) 1 PCI-E Gen3 x16 OCP 2.0 NIC	[SKU #2] 2 PCI-E Gen3 x16 (FH/FL) 2 PCI-E Gen3 x8 (LP) 1 PCI-E Gen3 x16 OCP 2.0 NIC
Input / Output	Front I/O	2 USB2 1 PWR_LED, 1 HDD_LED, 1 Info_LED, 1 ID_LED, 2 LAN_LED(Mgmt)	2 USB2 1 PWR_LED, 1 HDD_LED, 1 Info_LED, 1 ID_LED, 2 LAN_LED(Mgmt)	2 USB2 1 PWR_LED, 1 HDD_LED, 1 Info_LED, 1 ID_LED, 2 LAN_LED(Mgmt)
	Rear I/O	4 USB3.0 1 GbE RJ45 management port 2 GbE LAN port 1 RS232 serial port 1 VGA port 1 ID button	4 USB3.0 1 GbE RJ45 management port 2 GbE LAN port 1 RS232 serial port 1 VGA port 1 ID button	4 USB3.0 1 GbE RJ45 management port 2 GbE LAN port 1 RS232 serial port 1 VGA port 1 ID button
Power Supply	Power Rating	Redundant hot-plug Platinum 850W PSU	Redundant hot-plug Platinum 850W/1200W PSU	Redundant hot-plug Platinum 850W/1200W PSU
	Input	AC 100 ~ 240 V @ 50 ~ 60 Hz, full range	AC 100 ~ 240 V @ 50 ~ 60 Hz, full range	AC 100 ~ 240 V @ 50 ~ 60 Hz, full range
Cooling		4 system FAN with smart FAN control	4 system FAN with smart FAN control	4 system FAN with smart FAN control
TPM	Trust Platform Module	TPM 2.0 SPI module (Optional)		
System Management		Industry standard BMC, IPMI v2.0 / Redfish compliant, with web interface, iKVM on request (AMI MegaRAC SP-X)	Industry standard BMC, IPMI v2.0 / Redfish compliant, with web interface, iKVM on request (AMI MegaRAC SP-X)	Industry standard BMC, IPMI v2.0 / Redfish compliant, with web interface, iKVM on request (AMI MegaRAC SP-X)
OS support		Linux (CentOS, Red Hat, Ubuntu), Windows server	Linux (CentOS, Red Hat, Ubuntu), Windows server	Linux (CentOS, Red Hat, Ubuntu), Windows server
Dimensions	W x H x D (inch)	17.6 x 3.48 x 30 inch	17.6 x 3.48 x 30 inch	17.6 x 3.48 x 30 inch
	W x H x D (mm)	448 x 88.4 x 760 mm	448 x 88.4 x 760 mm	448 x 88.4 x 760 mm
Environment	Operating Temperature	0 ~ 40 °C (32 ~ 104 °F)	0 ~ 40 °C (32 ~ 104 °F)	0 ~ 40 °C (32 ~ 104 °F)
	Non-operating Temperature	-20 ~ 80° C (-4 ~ 167° F) and 40° C @ 95% RH Non-Condensing	-20 ~ 80° C (-4 ~ 167° F) and 40° C @ 95% RH Non-Condensing	-20 ~ 80° C (-4 ~ 167° F) and 40° C @ 95% RH Non-Condensing
	Vibration Resistance	With SATA HDD: 0.5 Grms, IEC 60068-2-64, 5-500Hz, 1hr/axis	With SATA HDD: 0.5 Grms, IEC 60068-2-64, 5-500Hz, 1hr/axis	With SATA HDD: 0.5 Grms, IEC 60068-2-64, 5-500Hz, 1hr/axis
	Shock Protection	With SATA HDD: 10G, IEC-60068-2-27, half sine, 11ms duration	With SATA HDD: 10G, IEC-60068-2-27, half sine, 11ms duration	With SATA HDD: 10G, IEC-60068-2-27, half sine, 11ms duration
Certification	EMC	CE/FCC/CB/UL/CCC	CE/FCC/CB/UL/CCC	CE/FCC/CB/UL/CCC

(Note 1) 12 SAS drives supports via additional SAS controller HBA (Adv-ROC 8i, Advantech mezzanine RAID card, supports RAID 0, 1, 5, 6, 10, 50, 60)

(Note 2) 16 SATA3/SAS drives supports via additional storage HBA (Adv-ROC 8i, Advantech mezzanine RAID card, supports RAID 0, 1, 5, 6, 10, 50, 60)

## Dimensions

Unit: mm



## Front View



## Rear View



## Ordering Information

	CPU	DDR4	PCH	PCIe Slots	PSU
SKY-7221D3A-12A1R	Dual Socket Intel Xeon Scalable Processors (Cascade Lake/Skylake)	24 DIMM Slots	C621 (Note 1)	1 PCI-E Gen3 x16 (FH/FL) 4 PCI-E Gen3 x8 (LP) 1 PCI-E Gen3 x16 OCP 2.0 NIC (Note 2)	850W Redundant PSU
SKY-7221D3S-12P8R	Dual Socket Intel Xeon Scalable Processors (Cascade Lake/Skylake)	24 DIMM Slots	C624 (Note 1)	2 PCI-E Gen3 x16 (FH/FL) 2 PCI-E Gen3 x8 (LP) 1 PCI-E Gen3 x16 OCP 2.0 NIC	850W Redundant PSU
SKY-7221D3S-16C1R	Dual Socket Intel Xeon Scalable Processors (Cascade Lake/Skylake)	24 DIMM Slots	C624 (Note 1)	1 PCI-E Gen3 x16 (FH/FL) 4 PCI-E Gen3 x8 (LP) 1 PCI-E Gen3 x16 OCP 2.0 NIC (Note 2)	1200W Redundant PSU

Note 1 : Optional PCH sku : C622 for 2 10GbE SFP+, and C624 for 4 10GbE SFP+ support

Note 2 : Optional PCIe expansion slots support featuring 2 PCI-E Gen3 x16 (FH/FL), 2 PCI-E Gen3 x8 (LP), 1 PCI-E Gen3 x16 OCP 2.0 NIC

Note 3 : 2U24 sku with 24x SATA/SAS hot-swappable drives support is available per business request

## Packing List

Part no.	Description
1960081028N001	CPU Heatsink
1651003079-01	CPU Clip for Heatsink
1960083839N000	Bracket for FH/FL long PCIe card

## Optional Accessories

Part no.	Description
1702002600	Power cord 3P 180 cm, USA
1702002605	Power cord 3P 180 cm, Europe
1702031801	Power cord 3P 180 cm, UK
1700000237	Power cord 3P 180 cm, JP
1700009652	Power cord 3P 180 cm, China
1700027969-01	Power cable for GPU card
96PSRM-A850WCRP	AC 850W PSU CRPS Module
96PSRM-A1K2WCRPA	AC 1200W PSU CRPS Module
968AE00029	Slide rail kit
969272210C0	TPM2.0 module