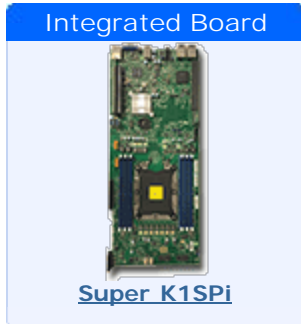


SuperServer 5028TK-HTR (Complete System Only)



Due to the complexity of integration, this product is sold as a completely assembled system only (with minimum 4 CPUs and 24 DIMMs installed). Please contact your Supermicro sales rep for special requirements.

[▶ Drivers & Utilities](#) ▶ [BIOS](#) ▶ [IPMI](#) ▶ [Tested Memory](#) ▶ [Manuals](#) ▶ [OS Certification Matrix](#) ▶ [Drive Options](#)

Key Features

Four **hot-pluggable** systems (nodes) in a 2U form factor. Each node supports the following:

1. Single socket P (LGA 3647) supports Intel® Xeon® Phi™ x200 processor, optional integrated Intel® Omni-Path fabric, CPU TDP support Up to 260W
2. Up to 384GB ECC LRDIMM, 192GB ECC RDIMM, DDR4-2400MHz in 6 DIMM slots
3. 2 PCI-E 3.0 x16 (Low-profile) slots
4. Intel® i350 Dual port GbE LAN
5. 1 Dedicated IPMI LAN port
6. 3 Hot-swap 3.5" SATA drive bays
7. 1 VGA, 2 SuperDOM, 1 COM, 2 USB 3.0 ports (rear)
8. 4x 8cm heavy duty PWM fans with air shroud and optimal fan speed control
9. 2000W Redundant Power Supplies Titanium Level (96%)

Note: Image above may show a varied configuration or optional parts, Please refer to parts list for standard parts included.

Specifications

Product SKUs

SYS-5028TK-HTR ■ SuperServer 5028TK-HTR (Black)

SYS-5028TK-HTR-NF1 ■ Includes 4x 7210 processors

SYS-5028TK-HTR-NF3 ■ Includes 4x 7230 processors

SYS-5028TK-HTR-NF5 ■ Includes 4x 7250 processors

SYS-5028TK-HTR-NF9 ■ Includes 4x 7290 processors

SYS-5028TK-HTR-FC1 ■ Includes 4x 7210F processors

SYS-5028TK-HTR-FC3 ■ Includes 4x 7230F processors

SYS-

Chassis

Form Factor ■ 2U Rackmount

Model ■ CSE-827HQ+ -R2K04BP2

Dimensions and Weight

Width ■ 17.25" (438mm)

Height ■ 3.47" (88mm)

Depth ■ 30" (762mm)

Weight ■ Gross Weight: 90 lbs (40.9kg)
■ Net Weight: 72 lbs (32.7 kg)



Available Colors ■ Black

Front Panel

Buttons ■ Power On/Off button
■ UID button

LEDs ■ Power status LED
■ HDD activity LED
■ Network activity LEDs
■ Universal Information (UID) LED

5028TK-HTR-FC5	<ul style="list-style-type: none"> Includes 4x 7250F processors
SYS-5028TK-HTR-FC9	<ul style="list-style-type: none"> Includes 4x 7290F processors
Motherboard	
<u>Super K1SPi</u>	
Processor	
Host Processor	<ul style="list-style-type: none"> Intel® Xeon® Phi™ x200 Processor, CPU TDP support up to 260W Socket P (LGA 3647)
Cores	<ul style="list-style-type: none"> Up to 72 Cores 16GB MCDRAM on package
System Memory	
Memory Capacity	<ul style="list-style-type: none"> 6x 288-pin DDR4 DIMM slots Up to 192GB ECC RDIMM
Memory Type	<ul style="list-style-type: none"> 2400/2133/1866/1600MHz ECC DDR4 SDRAM 72-bit (RDIMM)
DIMM Sizes	<ul style="list-style-type: none"> RDIMM: 32GB, 16GB, 8GB, 4GB
Memory Voltage	<ul style="list-style-type: none"> 1.2 V
Error Detection	<ul style="list-style-type: none"> Corrects single-bit errors Detects double-bit errors (using ECC memory)
On-Board Devices	
Chipset	<ul style="list-style-type: none"> Intel® C612 chipset
SATA	<ul style="list-style-type: none"> SATA3 (6Gbps); RAID 0, 1, 5
Network Controllers	<ul style="list-style-type: none"> Intel® i350 Dual Port Gigabit Ethernet Virtual Machine Device Queues reduce I/O overhead Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output 1 Realtek RTL8201N PHY (dedicated IPMI)
IPMI	<ul style="list-style-type: none"> Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support ASPEED AST2400 BMC
Video	<ul style="list-style-type: none"> ASPEED AST2400 BMC
Input / Output (per Node)	
SATA	<ul style="list-style-type: none"> 3 SATA3 (6Gbps) ports
LAN	<ul style="list-style-type: none"> 2 RJ45 Gigabit Ethernet LAN ports 1 RJ45 Dedicated IPMI LAN port
USB	<ul style="list-style-type: none"> 2 USB 3.0 ports (rear)
Video	<ul style="list-style-type: none"> 1 VGA port
COM Port/Header	<ul style="list-style-type: none"> 1 COM (header)
SuperDOM	<ul style="list-style-type: none"> 2 <u>SuperDOM</u> (Disk on Module) ports with built-in power

Expansion Slots (per Node)	
PCI-Express	<ul style="list-style-type: none"> 2 PCI-E 3.0 x16 Low-profile slots <p>Not available on FC1/FC3/FC5/FC9 SKUs</p>
Drive Bays (per Node)	
Hot-swap	<ul style="list-style-type: none"> 3 Hot-swap 3.5" SATA HDD trays
System Cooling	
Fans	<ul style="list-style-type: none"> 4x 8cm heavy duty PWM fans with optimal fan speed control
Power Supply (76mm Width)	
2000W Redundant Power Supplies with PMBus	
Total Output Power	<ul style="list-style-type: none"> 1000W/1800W/1980W/2000W
Dimension (W x H x L)	<ul style="list-style-type: none"> 76 x 40 x 336 mm
Input	<ul style="list-style-type: none"> 1000W: 100-127 Vac / 12-9.5 A / 50-60 Hz 1800W: 200-220 Vac / 10-9.5 A / 50-60 Hz 1980W: 220-230 Vac / 10-9.8 A / 50-60 Hz 2000W: 230-240 Vac / 10-9.8 A / 50-60 Hz 2000W: 200-240 Vac / 11.8-9.8 A / 50-60 Hz (UL/cUL only)
+12V	<ul style="list-style-type: none"> Max: 83.3A / Min: 0A (100-127 Vac) Max: 150A / Min: 0A (200-220 Vac) Max: 165A / Min: 0A (220-230 Vac) Max: 166.7A / Min: 0A (230-240 Vac) Max: 166.7A / Min: 0A (200-240 Vac) (UL/cUL only)
+5Vsb	<ul style="list-style-type: none"> Max: 1A / Min: 0A
Output Type	<ul style="list-style-type: none"> 27 Pairs Gold Finger Connector
Certification	  <ul style="list-style-type: none"> UL/cUL/CB/BSMI/CE/CCC Titanium Level [Test Report]
System BIOS	
BIOS Type	<ul style="list-style-type: none"> 128Mb SPI Flash EEPROM with AMI BIOS
BIOS Features	<ul style="list-style-type: none"> Plug and Play (PnP) APM 1.2 PCI 2.2 ACPI 1.0 / 2.0 USB Keyboard support SMBIOS 2.3 UEFI
Operating Environment / Compliance	
RoHS	<ul style="list-style-type: none"> RoHS Compliant
Environmental Spec.	<ul style="list-style-type: none"> Operating Temperature: 10°C to 35°C (50°F to 95°F) Non-operating Temperature: -40°C to 70°C (-40°F to 158°F) Operating Relative Humidity: 8% to 90% (non-condensing) Non-operating Relative Humidity: 5% to 95% (non-condensing)

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-K1SPi	4	Super K1SPi Motherboard
	CSE-827HQ+-R2K04BP2	1	2U Chassis
Air Shroud	MCP-310-21709-0B	4	Air shroud for K1SPi with 217HQ+/827HQ+(for liquid & air cooling)
Air Shroud	MCP-310-21704-0B	4	Air shroud for K1SPi with 217BHQ
Backplane	BPN-ADP-6SATA3-1UPK	4	Backplane adaptor for K1SPi mother board with Twin Pro system, support 6x SATA from on-board PCH and up to 432W power transfer
Backplane	BPN-SAS3-827HQ	1	12-port 2U TwinPro^2 SAS3 CSE-827HQ (3 drives per node) backplane, support up to 12x 3.5-inch SAS3/SATA3 HDD
Label	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
Riser Card	RSC-P-6	4	RSC-P-6 (1U LHS TwinPro RSC with 1 PCI-Ex16),RoHS
Riser Card	RSC-R1UTP-E16R	4	1U RHS TwinPro Riser card with one PCI-E x16 slot
Heatsink / Retention	SNK-P0060P	4	1U Passive CPU Heat Sink w/ Carrier for Intel Knights Landing (KNL) Processors
Power Supply	PWS-2K04A-1R	2	AC-DC 2000W, Titanium Level, Redundancy, 1U, PMBus 1.2, +12V/+5Vsb, 360x76x40mm,HF,RoHS/REACH
Software	SFT-OOB-LIC	1	License key for enabling OOB BIOS management

Optional Parts List

	Part Number	Qty	Description
Converter Drive	MCP-220-00118-0B	-	Black gen-5.5 tool-less 3.5" to 2.5" converter drive tray
Global Services & Support	OS4HR3/2/1	-	3/2/1-year onsite 24x7x4 service
	OSNBD3/2/1	-	3/2/1-year onsite NBD service
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)