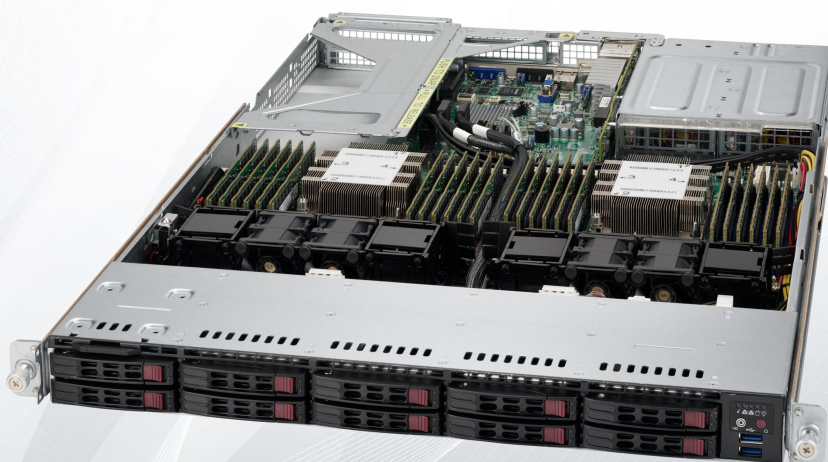


RS6140 RACK SERVER

HIGH CONFIGURATION AND WIDE RANGE OF APPLICATIONS

The server can be easily reconfigured for multiple Enterprise and Data Center applications in Virtualization, Big Data, Analytics and Cloud Computing.



Overview

RS6140 rack server is a 1U system with 10x storage bays up front and support for dual Intel Xeon Scalable processors. It offers the highest performance and flexibility with dual processors designed to support the highest CPU thermal design power (TDP). The Server can support up to 24x memory modules and up to 6TB of memory. RS6140 rack server is the only system that has dual 10G SFP+ and dual gigabit ethernet ports.

Benefits

- Dual Socket P (LGA 3647) support 2nd Gen Intel® Xeon® Scalable processors
- Intel® C621 Chipset
- 24 DIMMs, up to 6TB 3DS ECC
- 2x10G SFP+ and 2x1GbE ports
- 10 Hot-swap 2.5" Drive Bays
- 8 heavy duty fans w/ optimal fan speed control

Product Characteristics

Performance

Two Intel Xeon Scalable processors can be installed on the FS RS6140 with up to 28 cores, a thermal design power (TDP) of 70-205W, and a transfer speed of up to 10.4GT/s. Both Gen 1 and Gen 2 Scalable processors are supported on this system, but you will get better performance using Gen 2 processors with memory speeds of up to 2933MT/s. Gen 1 processors run at speeds of up to 2633MT/s. The system is also powered by a 750W redundant Platinum Level power supply.

Memory

There are 6x memory module slots on either side of both CPUs, with 12x DIMMs per processor divided between 6x memory channels. When all 24 DIMMs are populated in a dual-processor configuration, the system can support up to 6TB of memory. Registered (RDIMM), Load-Reduced (LRDIMM), and Intel Optane memory modules are supported on this system using the proper processors and memory modules.

Storage

Offering a variety of network and expansion possibilities, the system also supports hybrid storage options. With 10x 2.5-inch drive bays on the front of the RS6140 rack server, the hot-swap bays can be outfitted with SATA drives, which are supported by direct connections to the motherboard. Two drive bays feature hybrid ports that can also support NVMe, while the other eight drive bays can support SAS drives with an optional add-on HD/RAID controller.

Expansion

The FS RS6140 rack server supports up to four PCIe 3.0 slots. One of the slots is designated for a Nvidia GPU. The remaining slots support one SATA M.2 via an optional add-on card, plus two PCIe M.2 cards. The system features dual 10G SFP+ and dual gigabit ethernet ports, plus a management port to access the Intelligent Platform Management Interface (IPMI) to remotely manage the power, temperature, and voltages.

Management

Management of the system is through the Intelligent Platform Management Interface (IPMI), which can help to manage the system both at-chassis and remotely. FS offers several different management tools available for all models in the rack servers. Management programs include Redfish API, IPMI 2.0, Watch Dog, Intel Node Manager, etc. IPMI2.0 monitors the chassis' health information like CPU temperature, system power consumption, and fan speed. Most recently, FS also supports API Redfish, which is a different variation of the Intelligent Platform Management Interface (IPMI), but without the hassle. Redfish allows users to program maintenance tasks and simple configurations that have been too complex and time-consuming in the past.

Product Parameters

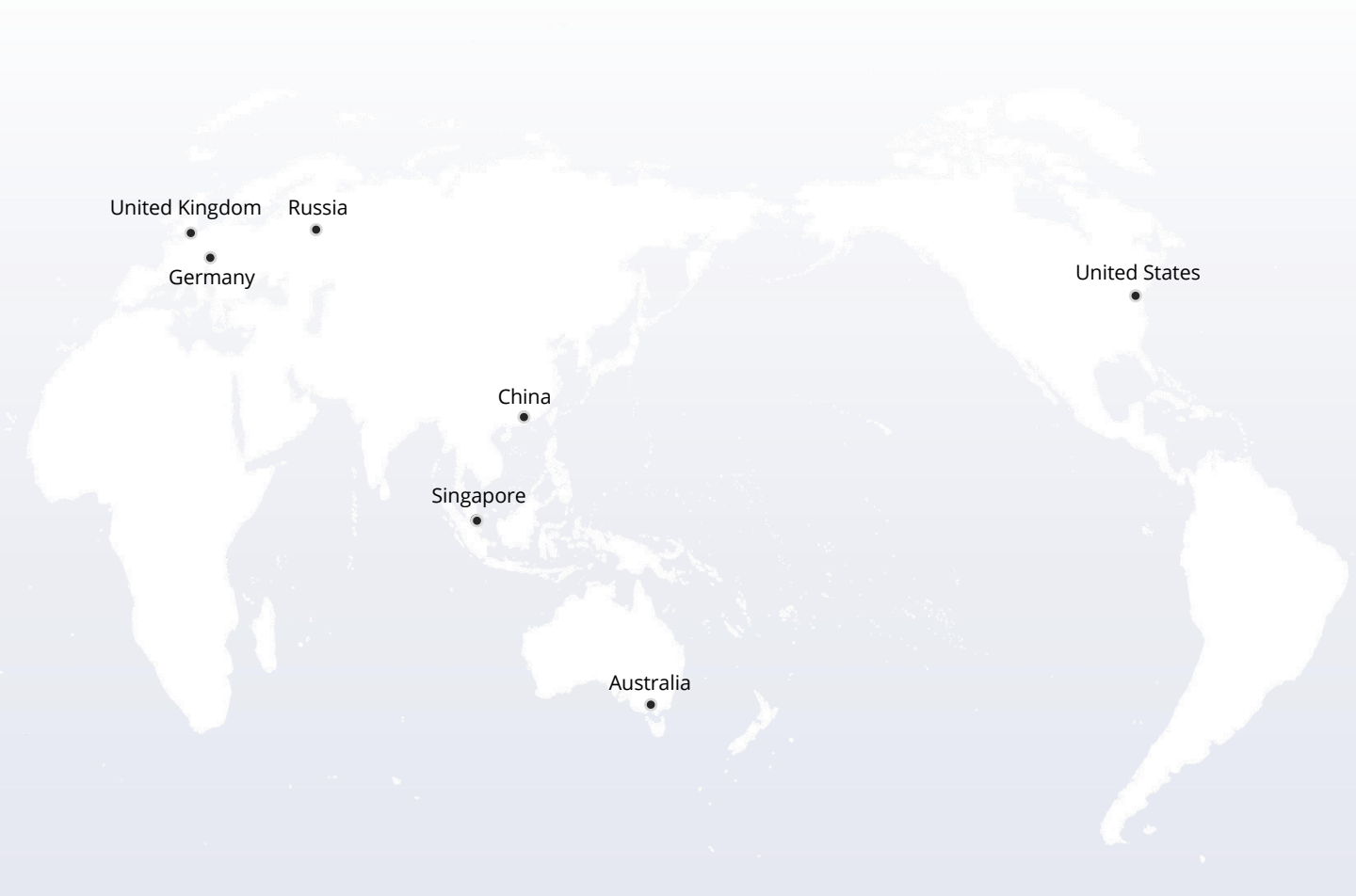
Processor	
CPU	Dual Socket P (LGA 3647) 2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors*, Dual UPI up to 10.4GT/s Support CPU TDP 70-205W
Cores	Up to 28 Cores
Note	* BIOS version 3.2 or above is required to support 2nd Gen Intel® Xeon® Scalable processors (codenamed Cascade Lake-R). Extended thermal solutions may be required to support CPUs higher than 165W TDP, please contact Supermicro Technical Support for additional information.
System Memory	
Memory Capacity	24 DIMM slots Up to 6TB 3DS ECC DDR4-2933MHz* RDIMM/LRDIMM Supports Intel® Optane™ DCPMM**
Memory Type	2933*/2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM 2666 ECC DDR4 NVDIMM
Note	* 2933MHz in two DIMMs per channel can be achieved by using memory purchased from FS **Cascade Lake only. Contact your FS sales rep for more info.
On-Board Devices	
Chipset	Intel® C621 chipset
SATA	SATA3 (6Gbps); RAID 0, 1, 5, 6, 10, 50, 60
Graphics	ASPEED AST2500 BMC
Network Connectivity	2x10G SFP+ ports and 2x1GbE ports via AOC-URN2-I4GXS-O (Intel X710 and Intel i350-AM2)
IPMI	Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Input / Output	
LAN	2 10G SFP+ ports 2 RJ45 Gigabit Ethernet ports 1 RJ45 Dedicated IPMI LAN port
USB	5 USB 3.0 ports (2 rear, 2 front, 1 Type A)
Video	2 VGA ports (1 rear, 1 onboard)
Serial Port	1 Serial header
SATA	10 SATA3 (6Gbps) ports
SAS	8 SAS3 ports support via optional Add-on Card
Management	
Software	Intel® Node Manager IPMI 2.0 KVM with dedicated LAN NMI

Product Parameters

Management	
Power Configurations	ACPI Power Management
PC Health Monitoring	
CPU	Monitors for CPU Cores, Chipset Voltages, Memory 4+1 Phase-switching voltage regulator
FAN	Fans with tachometer monitoring Status monitor for speed control Pulse Width Modulated (PWM) fan connectors
Temperature	Monitoring for CPU and chassis environment Thermal Control for fan connectors
System BIOS	
BIOS Type	AMI 32Mb SPI Flash ROM
Dimensions and Weight	
Height	1.7" (43mm)
Width	17.2" (437mm)
Depth	28.5" (724mm)
Weight	Net Weight: 26 lbs (11.8 kg) Gross Weight: 41 lbs (18.6 kg)
Available Color	Black
Chassis	
Form Factor	1U Rackmount
Front Panel	
Buttons	Power On/Off button System Reset button
LEDs	Power LED Hard drive activity LED Network activity LEDs System Overheat LED / Fan fail LED / UID LED
Drive Bays / Storage	
Hot-swap	10 Hot-swap 2.5" drive bays; 10 SATA3 (2 hybrid ports - 2 NVMe opt.)
M.2	1 M.2 PCI-E 3.0 x4 M-Key NVMe or 1 M.2 M-Key SATA3 (2240/2260/2280/22110) via optional riser card (see optional parts list) 2 M.2 PCI-E 3.0 x4 M-Key NVMe (2260/2280/22110) via optional add-on card AOC-SLG3-2M2

Product Parameters

Expansion Slots	
PCI-Express (PCI-E)	Slot 1: PCI-E 3.0 x16 FH, 10.5"L Slot 2: PCI-E 3.0 x16 FH, 10.5"L Slot 3: PCI-E 3.0 x8 Internal LP Slot 4: PCI-E 3.0 x8 LP
Note	(Both CPUs need to be installed for full access to PCI-E slots and onboard controllers.)
System Cooling	
Fans	8 heavy duty fans with optimal fan speed control
Air Shroud	1 Air Shroud
Power Supply	
Total Output Power	750W: 100 – 127Vac 750W: 200 – 240Vac
Dimension(W x H x L)	73.5 x 40 x 203 mm
Input	100-127Vac / 9.5A Max / 50-60Hz 200-240Vac / 4.5A Max / 50-60Hz
+12V	Max: 62.5A / Min: 0A
12V SB	Max: 2.1A / Min: 0A
Output Type	25 Pairs Gold Finger Connector
Operating Environment	
RoHS	RoHS Compliant
Environmental Spec.	Operating Temperature: 10°C ~ 35°C (50°F ~ 95°F) Non-operating Temperature: -40°C ~ 70°C (-40°F ~ 158°F) Operating Relative Humidity: 8% to 90% (non-condensing) Non-operating Relative Humidity: 5% to 95% (non-condensing)
Warranty	
Warranty	3 years labor, 3 years parts



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