

S-1600 R3

High-Reliability, Single CPU Systems



UNICOM Engineering's S-1600 R3 offers high-reliability in a single CPU package. Combining the performance of a single Intel Xeon E5-2600 or E5-1600 v2 series Sandy Bridge Microarchitecture processor with redundant power and up to eight hot swap hard drives with integrated RAID, this platform offers the maximum reliability and uptime required for business critical applications. With three available expansion risers, the S-1600 R3 is designed to meet various expansion demands while maintaining a 1U form factor.

Features and Benefits

Built for Performance

- Supports a single up to 8 cores Intel Xeon E5-2600 Series or up to 6 cores Intel Xeon E5-1600 v2 Series Sandy Bridge Microarchitecture processor for maximum performance and density
- Supports up to 8 DDR3-1600 MHz ECC DIMMs for faster application execution and greater overall stability
- Supports up to eight SAS 10K RPM HDD allow ideal customization to meet the storage needs of various applications

Built for High Reliability Applications

- Enterprise class SAS & SSD drives and RAID ensure maximum reliability
- Hot swap hard drives and power supplies ensure low Mean-Time-To-Repair (MTTR)
- Redundant hot swap power supplies ensure high reliability in case of a failure

AT A GLANCE

- 1U ~ 26" deep
- Single Intel Xeon E5-2600 or E5-1600 v2 Series Sandy Bridge processor
- Intel C600-A Platform Controller Hub (PCH) with support of optional storage upgrade keys
- Up to 8 Dual In-Line Memory Modules (DIMMs) Double Data Rate 3 (DDR3) – 1600 MHz
- Up to eight 2.5" or up to four 3.5" SAS/SATA HDDs
- Embedded software RAID technology for 4-port SATA RAID levels 0/1/5/10
- Three Expansion Riser Cards slots
- Four RJ-45 Network Interface 1 GbE ports
- Four USB 2.0 ports
- Redundant 450W AC power supply units

S-1600 R3

technical specifications



S-1600 R3 Rear View

Form Factor

1U rack mount

Dimensions (WxHxD)

1.70" (43.2 mm) x 17.24" (438 mm) x 26.18" (665 mm)

Front Bezel

Optional snap-on front Bezel with optional snap-in branding / logo badge and snap-on swoosh (wave)

Processors

- Support for one Intel Xeon E5-2600 or E5-1600 v2 series Sandy Bridge Processor, LGA 2011, Socket R

Chipset

Intel C600-A chipset with support of optional Storage Option Select keys

Integrated RAID Support

Support for two embedded software RAID options: Intel Rapid Storage Technology (RSTe) & Intel Embedded Server RAID Technology 2 (ESRT2) based on LSI MegaRAID SW

- Standard RAID option – 4 Port SATA with Intel ESRT2 RAID 0,1,10 and Intel RSTe RAID 0,1,5,10 ... (No Option key)
- Optional Upgrade - 4 Port SATA with Intel ESRT2 RAID 0,1, 5, 10, and Intel RSTe RAID 0,1,5,10 ... (Black Key)
- Optional Upgrade - 4 Port SAS with Intel ESRT2 RAID 0,1,10, and Intel RSTe RAID 0,1,10 ... (Green Key)
- Optional Upgrade - 4 Port SAS with Intel ESRT2 RAID 0,1, 5, 10, and Intel RSTe RAID 0,1,10 ... (Yellow Key)

Memory

- 8 DIMMs slots
- 4 GB, 8 GB, 16 GB DDR3-1600 MHz ECC Registered

Storage Options

- 4 x 3.5" hot swap hard drive bays; SATA/SAS HDD, 6 Gbps, 500 GB – 4 TB, 7.2K RPM
- 8 x 2.5" hot swap hard drive bays; SATA/SAS HDD, 6 Gbps, 250 GB – 1 TB, 7.2K – 10K RPM; SSD 80 GB – 480 GB
- Optional bay for DVD drive support

Riser Cards

Support for three riser card slots:

- Riser slot 1 supports PCIe Gen3 x16 Riser with Low Profile PCIe add-in card
- Riser slot 2 supports PCIe Gen3 x8 Riser for Intel rIOM and RMM4 NIC port. This Riser and the carrier card are optional
- Riser slot 3 supports two slots Riser, PCIe Gen3 x16 + x8 with full length & full height add-in card

Optional Add-in PCIe Cards

- Dual-Port 1 GbE; Quad-Port 1 GbE; Dual-Port 10 GbE Fiber/Copper, Bypass
- HW RAID Controllers, SAS/SATA, 4-8 ports internal, RAID Levels, Battery Backup
- Host Bus Adapters, 2-4 port external, 6 Gb SAS, 8 Gb Fibre Channel

Integrated External I/O

- DB-15 Video port (rear)
- Four RJ-45 Network Interface 1 GbE ports (rear)
- Two USB 2.0 ports (rear)
- Two USB 2.0 ports (front)

Server Management

- Onboard Emulex LLC Pilot III Controller
- Integrated Baseboard Management Controller (BMC), IPMI 2.0 Compliant
- Support for Intel Remote Management Module 4 Lite for Remote Keyboard, Video, Mouse (KVM) support
- Optional Intel Remote Management Module 4 Management NIC for dedicated network interface
- Support for Intel System Management Software

Security

Optional Intel Trusted Platform Module (TPM)

Front Control Panel

Standard Control Panel features includes:

- System ID Button with integrated LED
- Non-Maskable Interrupt (NMI) Button
- Network Activity LEDs
- System Cold Reset Button
- System Status LED
- In addition to the Standard Control Panel, a Local Control Panel which includes: LCD display, control buttons, 2 USB 2.0 ports can be supported as an add-in option.

Server Management

- Integrated Baseboard Management Controller (BMC), IPMI 2.0 Compliant
- Intel Remote Management Module 4 Lite for remote Keyboard, Video, Mouse (KVM) support
- Intel Remote Management Module 4 Management NIC for dedicated network interface

Security

Optional Intel Trusted Platform Module (TPM)

Control Panel

- System ID Button with integrated LED
- Non-Maskable Interrupt (NMI) Button
- Network Activity LEDs
- System Cold Reset Button
- System Status LED
- Optional LCD Control Panel

System Cooling

- Four managed dual rotor 40x56 mm system fans
- One embedded fan for each installed power supply

Power

- 450-watt AC, redundant 1+1, hot swap extraction and insertion
- AC Input Voltage Spec:
 - Voltage, 90V to 132V and 180V to 264V
 - Frequency, 47 Hz to 63 Hz
 - Source Interrupt, No loss of data for power line drop-out of 12 msec
- Power Supply Module Efficiency:
 - 88% Min Efficiency @ 100% Max loading
 - 92% Min Efficiency @ 50% Max loading
 - 88% Min Efficiency @ 20% Max loading

Operating Systems

Network Operating Systems supported by Intel at product launch:

- Microsoft Windows Server 2008 R2 SP1 with Hyper-v x64 & EFI
- Microsoft Windows Server 2008 SP2 with Hyper-v x64 & x32
- Red Hat Linux Enterprise Server 6.0 U2 with KVM x64 & x32
- Suse Enterprise Linux 11 SP2 with KVM x64 & x32

Regulatory Approval

FCC Class A, VCCI, CE, UL, RoHS

Environment

Temperature:

- Operating Temperature: 10°C to 35°C (50 to 95°F) with the maximum rate of change not to exceed 10°C per hour.
- Non-Operating Temperature: -40°C to 70°C (-40 to 158°F)

Humidity:

- Non-Operating Humidity: 50%-90%, non-condensing at 28°C (82°F)

Altitude:

- Support operation up to 3,050m (10,006 FT)

Warranty

- Standard two-year limited warranty, return to factory
- Optional extended warranty and advance replacement service.

NOTE: specifications subject to change without notice.

Support and Maintenance Services

UNICOM Engineering offers a variety of support and maintenance service programs to ensure high availability, rapid response, effective troubleshooting, fast parts replacement and 24-hour support. Please visit www.unicomengineering.com/supportservices for more information.

sales@unicomengineering.com

unicomengineering.com

twitter.com/UNICOMEng

facebook.com/UNICOMEng

+1 800.977.1010

linkedin.com/company/unicomengineering