

# ESR-104

## Build Unique Storage Solutions with a Technology Edge

The ESR 104 is a EIA310-D standard 1U chassis designed that balances what is possible and what is needed. It supports most form factor server board in the market, Single Pentium 4 or Althon , Dual Intel Nocona/Irwindale or Dual AMD Opteron Server Boards in a high density and cost-effective enclosure. The ESR 104 storage server chassis deliver technology that differentiates your company by helping you to create integrated competitive solutions that win. Your customers need it, expect it, and demand it

The ESR series Storage server balances what the End-User and System vendor needs to deliver the best solution, provides classy design, highest flexibility, easy to install and maintain, more storage in limited space and ultimate drive and data protection in this limited space. Each unit has up to 4 dual row hot-swappable cooling fans and with multiple temperature sensors at the hot points. The ESR-104 backplane with build in power supply-to-drive isolation power management circuitry that allows control over voltage and current fluctuations to protect the data critical hard disk drives, making the ESR104 uniquely suitable for today highly demanding system workloads.

### Chassis Specification

1. EIA 310-D standard 1U chassis, Dimension 19"Wx1.74"Hx28"D
2. Corrosion-resistant steel construction
3. Includes 4 Hot Swappable, low-profile hard-disk drive carriers with dual status LEDs at each drive carrier
4. Support Ultra 320, SATA, and SAS
5. Support SSI CEB1.0, SSI EEB 3.5, extended ATX form factor
6. Changeable I/O Backpanel support different motherboards
7. On board temperature sensors
8. On board enclosure management feature includes multiple temperature sensors with audible and visible alarm, Power Supply health audible and visible alarm, System fan health audible and visible alarm
9. Front Panel includes:
  - Buttons and Switches: Power on/off (momentary) button, system-reset button, alarm reset button
  - LEDs: Power, Hard-Disk activity, network activity (two), system health
  - Connectors: Two USB ports, One serial port
10. Support 4 hot-swap 40mm high speed fans for system cooling that can be connected to system board to provide RPM control and data for fan-failure prediction and detection
11. Support up to 3 x 2.5" internal slim hard-disk drives
12. Includes slim CD-Rom and slim FDD carriers and conversion board
13. Power Supply with simple cable connection
14. Power Supply Option: 300W for Single CPU, 400W for Dual Opteron and 500W for Dual Xeon Nocona/Irwindale system
15. Horizontal BP design for better airflow, provides space for future SAS edge expander chips and delivers efficient connectivity to larger number of devices
16. Includes easy install Slide-Rail Kit



### SATA/SAS Backplane Specification

1. A power MOSFET to provide disk spin-up control
2. A pre-charge circuit for surge current protection when a disk is plugged in to protect the hard-disk drive and the backplane.
3. LED: Blue ON = HDD present; Blue Blanking = Drive activity; Red=Drive failed
4. A 4x2 header for Drive activity and Drive failed LED signal input
5. A 4x3 jumper with 4 jumper cap is added to select either disk activity LED is provide by the Host Bus Adapter or form HDD such as Western Digital or Maxtor Diamond Max X hard disk drive
6. Single DC input to provide better cable management
7. 32 pin SFF8484 connector to SATA Point-to-Point or 32 pin SFF8484 with latch to secure the SATA/SAS cable is not loose
8. Options included Point-to-Point or Multilane data cable connection. 32pin 4-lane-to-1-lane connection available (special order only)

### SCSI Backplane Specification

1. A power MOSFET to provide disk spin-up control
2. A pre-charge circuit for surge current protection when a disk is plugged in to protect the hard-disk drive and the backplane.
3. LED: Blue ON = HDD present; Blue Blanking = Drive activity; Red=Drive failed
4. A 4x2 header for Drive activity and Drive failed LED signal input
5. Single DC input to provide better cable management
6. Piano Switch for easy SCSI ID setting
7. Two HD68 SCSI connectors for daisy chain if required

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