## ThinkSystem SR850 Platform Specifications

| Components | Specification |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Form factor | 2 U rack |  |  |  |  |  |  |  |  |
| Dimensions | Height: $86.5 \mathrm{~mm}(3.4 \mathrm{in})$. Width: 482 mm ( 19.0 in ) with rack latches. Depth: 763.7 mm (30.1 in) without security bezel |  |  |  |  |  |  |  |  |
| Weight | Maximum configuration: $59.52 \mathrm{lb}(27 \mathrm{~kg})$ |  |  |  |  |  |  |  |  |
| Processor | Supports up to four 165W Intel Xeon Scalable family processors, Gold or Platinum. 2 processor sockets on system board, 2 processor sockets on optional processor and memory expansion tray. Up to 28 cores at 2.1 GHz , up to 3.6 GHz with 4 cores. Four processors are connected in ring topology with two 10.4GT/s UPI (Ultra Path Interconnect) |  |  |  |  |  |  |  |  |
| Chipset | Intel C624 Platform Controller Hub |  |  |  |  |  |  |  |  |
| Memory | Up to 48 DIMM sockets. 24 DIMM sockets on system main board, 24 DIMM sockets on optional processor and memory expansion tray. Each processor supports up to 12 DIMM sockets with 6 channels. DDR4-2666. RDIMMs, LRDIMMs, 3DS RDIMMs are supported, but memory types cannot be intermixed. 3DS RDIMM is planned to available later |  |  |  |  |  |  |  |  |
| Memory capacity | Up to 1.5TB with $48 \times 32$ GB RDIMMs and four processors. Or up to 3TB with $48 \times$ 64GB LRDIMMs and four processors. Or up to 6TB with $48 \times 128 \mathrm{~GB}$ 3DS RDIMMs and four -M suffix processors. Or up to 3TB with $24 \times 128 \mathrm{~GB}$ 3DS RDIMMs and four non -M suffix processors. - $M$ suffix processor supports 1.5TB memory per socket, non -M suffix processor supports 768GB memory per socket |  |  |  |  |  |  |  |  |
| Memory protection | ECC, memory mirroring, and memory sparing |  |  |  |  |  |  |  |  |
| Storage controllers | Supports the following RAID/HBA adapters: |  |  |  |  |  |  |  |  |
|  | Feature | Interface | Drive type | RAID levels | JBOD | Cache | Cache | FastPath | Max aty |
|  | 530-8i | 12Gbps SAS | SATA/SAS | 0/1/10/5/50 | Yes | None | None | Yes | 2 |
|  | 730-8i | 12Gbps SAS | SATA/SAS | 0/1/10/5/50 | Yes | 1GB | None | No | 2 |
|  | 930-8i | 12Gbps SAS | SATA/SAS | 0/1/10/5/50/6/60 | Yes | 2GB | Flash backup | Yes | 2 |
|  | 930-16i | 12Gbps SAS | SATA/SAS | 0/1/10/5/50/6/60 | Yes |  | Flash backup | Yes | 1 |
|  | 430-8i | 12Gbps SAS | SATA/SAS |  | Yes | None | None |  | 2 |
|  | 430-16i | 12Gbps SAS | SATA/SAS |  | Yes | None | None |  | 1 |
|  | $930-8 \mathrm{e}$ | 12Gbps SAS | SATA/SAS | 0/1/10/5/50/6/60 | Yes |  | Flash backup | Yes | 4 |
|  | $430-8 \mathrm{e}$ | 12Gbps SAS | SATA/SAS |  | Yes | None | None |  | 8 |
|  | 430-16e | 12 Gbps SAS | SATA/SAS |  | Yes | None | None |  | 8 |
|  | Note: $730-8 i$ is available in China only |  |  |  |  |  |  |  |  |
| Disk drive bays | Supports 8 front 2.5" SATA/SAS HS bays with maximum 4 AnyBay, or 16 front 2.5" SATA/SAS HS bays with maximum 8 AnyBay <br> Optional one or two internal M. 2 SSD for boot, dual M. 2 SSD supports mirroring |  |  |  |  |  |  |  |  |
|  | 2.5" HDD, SAS12Gbps, 7.2K 1TB/2TB |  |  |  |  |  |  |  |  |
|  | $2.5{ }^{\text {" HDD, SAS12Gbps, } 10 \mathrm{~K}}$ ( 300GB/300GB SED/600GB/600GB SED/900GB/1.2TB/1.8TB |  |  |  |  |  |  |  |  |
|  | 2.5" HDD, SAS12Gbps, 15K $300 \mathrm{~KB} / 600 \mathrm{~GB} / 900 \mathrm{~GB}$ |  |  |  |  |  |  |  |  |
| Internal storage | 2.5" SSD, SAS12Gbps $400 \mathrm{~GB} / 800 \mathrm{~GB} / 3.84 \mathrm{~TB} / 7.68 \mathrm{~TB}$ |  |  |  |  |  |  |  |  |
|  | 2.5" SSD, SATA6Gbps 240GB/480GB |  |  |  |  |  |  |  |  |
|  | 2.5" NVMe SSD, AnyBay $\quad$ 800GB/960GB/1.6TB/1.92TB/3.84TB |  |  |  |  |  |  |  |  |
|  | NVMe SSD, PCle $3.0 \times 4, \mathrm{HHHL}$ adapter $1.6 \mathrm{~TB} / 1.92 \mathrm{~TB} / 3.2 \mathrm{~TB} / 3.84 \mathrm{~TB}$ |  |  |  |  |  |  |  |  |
|  | M. 2 SATA SSD for boot 32GB/128GB |  |  |  |  |  |  |  |  |
| Optical | No internal optical bay. Optional USB DVD $\pm$ RW optical drive |  |  |  |  |  |  |  |  |
| Network interfaces | One dedicated management port. One LOM slot for customized LOM with up to four RJ-45 or SFP+ ports, up to 10GbE. Wake-on-LAN and NC-SI are available on one port of LOM. Optional ML2 or PCle adapters are supported. ML2 adapter requires riser card with ML2 slot. |  |  |  |  |  |  |  |  |
| Security features | Power-on and admin password. Trusted Platform Module, TCG 1.2 compliant, upgrade to 2.0 via UEFI setting. Optional TCM in China only. Optional lockable security bezel |  |  |  |  |  |  |  |  |
| Operating systems supported | Microsoft Windows Server 2016/2012 R2. Red Hat Enterprise Linux 7.3/6.9. SUSE Linux Enterprise Server 12 SP2/11 SP4. VMware vSphere (ESXi) 6.5/6.0 U3 |  |  |  |  |  |  |  |  |
| Systems management | XClarity Controller Advanced, optional upgrades to Enterprise is available. Energy Manager. XClarity Administrator. Lenovo Capacity Planner. Light Path Diagnostics with optional LCD diagnostic pull-out panel |  |  |  |  |  |  |  |  |
| GPU support | None |  |  |  |  |  |  |  |  |
| Base warranty | MT 7X18: 1-year limited onsite service with $9 \times 5 /$ NBD MT 7X19: 3 -year limited onsite service with 9x5/NBD |  |  |  |  |  |  |  |  |
| Power supply | Up to two redundant hot-swap 750W/1100W/1600W 80 PLUS Platinum qualified AC power supplies. 1600 W Platinum are $200 \mathrm{~V}-240 \mathrm{~V}$, others are $100 \mathrm{~V}-240 \mathrm{~V}$ |  |  |  |  |  |  |  |  |



Note: All riser cards, expansion cards, and LOM adapters are optional. Slots are labelled as 1, 2, 3, 4, 5, 7, 8, 9, 10, 11.

## Expansion slots

Slot 1 (onboard) Slot 2 (onboard) Slot 3-5 (riser card)

PCle $3.0 \times 16$, low profile, requires 2 nd CPU
Cle $3.0 \times 8$, low profile, requires 2 nd CPU
Supports one of the following for riser card:
Option 1: PCle $3.0 \times 8 / \times 8 / \times 8$ (slot 3-5). Full h
Option 1: PCle $3.0 \times 8 / \times 8 / \times 8$ (slot $3-5$ ). Full height, half length
Option 2: PCle $3.0 \times 8 / \times 8 / \times 8$ ML2 (slot $3-5$ ). Full height, half length
Option 4: PCle $3.0 \times 8 / \times 16$ ML2 (slot 3 and 5). Full height, half length Slot 3-5 requires 2nd CPU
Slot 7 (onboard)
Slot 8 (onboard)
Slot 9 (onboard) Slot 10 (onboard) LOM, Iow profile
$\begin{array}{ll} & \text { PCle } 3.0 \times 8 \text {, low profile }\end{array}$

## $3.0 \times 16$, low profile

## System unique options for ThinkSystem SR850

7B27A03953 ThinkSystem SR850/SR860 Processor and Memory Expansion Tray
7C57A03999 ThinkSystem SR850/SR860 2.5" Anybay 8-Bay BP Kit
7C57A03998 ThinkSystem SR850/SR860 2.5" SATA/SAS 8-Bay BP Ki
7X97A03954 ThinkSystem SR850 Front VGA Connector Upgrade Kit
7C57A03950 ThinkSystem SR850/SR860 x8/x8/x8 PCle FH Riser Kit
7C57A03951 ThinkSystem SR850/SR860 x8/x8/x8ML2 PCle FH Riser Kit
7C57A03952 ThinkSystem SR850/SR860 x8/x16ML2 PCle FH Riser Kit

