

# ThinkServer RS140 Platform Specifications

Product Specifications Reference (PSREF)

| Components                  | Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                    |                                      |                                      |              |                            |              |               |                      |              |                                                    |               |                                     |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|--------------------------------------|--------------------------------------|--------------|----------------------------|--------------|---------------|----------------------|--------------|----------------------------------------------------|---------------|-------------------------------------|
| Dimensions                  | 1U rack.<br>Height: 43.5 mm (1.71 in), width: 430 mm (16.9 in), depth: 411 mm (16.2 in)                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                    |                                      |                                      |              |                            |              |               |                      |              |                                                    |               |                                     |
| Weight                      | Maximum configuration: 16.2 lb (7.36kg)                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                    |                                      |                                      |              |                            |              |               |                      |              |                                                    |               |                                     |
| Processor                   | Supports one of the following Intel processors (code name: Haswell): <ul style="list-style-type: none"> <li>Xeon E3-1200 v3: up to 4C/3.7GHz/8MB/84W/1600MHz</li> <li>Core i3: up to 2C/3.7GHz/4MB/54W/1600MHz</li> <li>Pentium: up to 2C/3.4GHz/3MB/53W/1600MHz</li> <li>Celeron: up to 2C/2.9GHz/2MB/53W/1333MHz</li> </ul> <i>Note: Supports processors with integrated graphics only.</i>                                                                                                                     |                                                    |                                      |                                      |              |                            |              |               |                      |              |                                                    |               |                                     |
| Chipset                     | Intel C226 Platform Controller Hub (PCH)                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                    |                                      |                                      |              |                            |              |               |                      |              |                                                    |               |                                     |
| Memory DIMMs                | 4 DIMM sockets, 2-channel capable. UDIMM, DDR3                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                    |                                      |                                      |              |                            |              |               |                      |              |                                                    |               |                                     |
| Memory capacity             | 32GB (4 x 8GB)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                    |                                      |                                      |              |                            |              |               |                      |              |                                                    |               |                                     |
| Memory protection           | ECC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                    |                                      |                                      |              |                            |              |               |                      |              |                                                    |               |                                     |
| RAID controller             | RAID 0, 1, 5, 10 with onboard RAID 100, 6Gb/s SATA. RAID 0, 1, 10 with RAID 500, PCIe adapter, 6Gb/s SAS/SATA, optional key for RAID5. RAID 0, 1, 10, 5, 6 with RAID 700, PCIe adapter, 6Gb/s SAS/SATA, optional Intelligent Battery Backup Unit (iBBU08)<br><i>Note: RAID 5, 6, and 10 needs 4 x 2.5" bays.</i>                                                                                                                                                                                                  |                                                    |                                      |                                      |              |                            |              |               |                      |              |                                                    |               |                                     |
| Disk drive bays             | Up to 2 3.5" disk bays or up to 4 2.5" disk bays. Direct cabled, non-hot swap.<br>Supports optional external USB RDX tape drive                                                                                                                                                                                                                                                                                                                                                                                   |                                                    |                                      |                                      |              |                            |              |               |                      |              |                                                    |               |                                     |
| Supporting disk drives      | <table border="1"> <tbody> <tr> <td rowspan="2">For 3.5" bay</td> <td>3.5" SATA HDD</td> <td>7.2K 6Gbs: 500GB/1TB/2TB/3TB/4TB/6TB</td> </tr> <tr> <td>3.5" SAS HDD</td> <td>7.2K 6Gbs: 1TB/2TB/3TB/4TB</td> </tr> <tr> <td rowspan="3">For 2.5" bay</td> <td>2.5" SATA HDD</td> <td>7.2K 6Gbs: 500GB/1TB</td> </tr> <tr> <td>2.5" SAS HDD</td> <td>10K 6Gbs: 300GB/600GB/900GB. 15K 6Gbs: 146GB/300GB</td> </tr> <tr> <td>2.5" SATA SSD</td> <td>6Gbs: 120GB/240GB/300GB/480GB/600GB</td> </tr> </tbody> </table> | For 3.5" bay                                       | 3.5" SATA HDD                        | 7.2K 6Gbs: 500GB/1TB/2TB/3TB/4TB/6TB | 3.5" SAS HDD | 7.2K 6Gbs: 1TB/2TB/3TB/4TB | For 2.5" bay | 2.5" SATA HDD | 7.2K 6Gbs: 500GB/1TB | 2.5" SAS HDD | 10K 6Gbs: 300GB/600GB/900GB. 15K 6Gbs: 146GB/300GB | 2.5" SATA SSD | 6Gbs: 120GB/240GB/300GB/480GB/600GB |
| For 3.5" bay                | 3.5" SATA HDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                    | 7.2K 6Gbs: 500GB/1TB/2TB/3TB/4TB/6TB |                                      |              |                            |              |               |                      |              |                                                    |               |                                     |
|                             | 3.5" SAS HDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 7.2K 6Gbs: 1TB/2TB/3TB/4TB                         |                                      |                                      |              |                            |              |               |                      |              |                                                    |               |                                     |
| For 2.5" bay                | 2.5" SATA HDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 7.2K 6Gbs: 500GB/1TB                               |                                      |                                      |              |                            |              |               |                      |              |                                                    |               |                                     |
|                             | 2.5" SAS HDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 10K 6Gbs: 300GB/600GB/900GB. 15K 6Gbs: 146GB/300GB |                                      |                                      |              |                            |              |               |                      |              |                                                    |               |                                     |
|                             | 2.5" SATA SSD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 6Gbs: 120GB/240GB/300GB/480GB/600GB                |                                      |                                      |              |                            |              |               |                      |              |                                                    |               |                                     |
| Optical drive               | Up to one 9.5mm optical. DVD-ROM or DVD±RW                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                    |                                      |                                      |              |                            |              |               |                      |              |                                                    |               |                                     |
| Network interfaces          | Two Gigabit Ethernet ports by Intel I210, on riser card.<br>One Gigabit Ethernet port by Intel I217, dedicate/share management                                                                                                                                                                                                                                                                                                                                                                                    |                                                    |                                      |                                      |              |                            |              |               |                      |              |                                                    |               |                                     |
| Security features           | Power-on and administrator password. TPM (TCG 1.2-compliant).                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                    |                                      |                                      |              |                            |              |               |                      |              |                                                    |               |                                     |
| Systems management          | Intel Active Management Technology 9 on models with Xeon processor. Remote presence is supported on models with Xeon processors.<br>Supports ThinkServer EasyStartup/EasyUpdate                                                                                                                                                                                                                                                                                                                                   |                                                    |                                      |                                      |              |                            |              |               |                      |              |                                                    |               |                                     |
| Operating systems supported | Microsoft Windows Server 2016/2012 R2/2012/2008 R2. Windows Small Business Server 2011. Red Hat Enterprise Linux 6.5. SUSE Linux Enterprise Server 11 SP3. VMware vSphere (ESXi) 5.5<br><i>Note: VMware requires add-on network adapter.</i>                                                                                                                                                                                                                                                                      |                                                    |                                      |                                      |              |                            |              |               |                      |              |                                                    |               |                                     |

| Components                  | Specification                                                                                                                                                                 |                                                         |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| Base warranty               | 1 or 3-year limited onsite service with 9x5/NBD.                                                                                                                              |                                                         |
| Power supply                | One fixed 300 watts power supply, 80 PLUS Gold qualified                                                                                                                      |                                                         |
| Graphics                    | Integrated Intel HD Graphics in processor                                                                                                                                     |                                                         |
| Front ports                 | Two USB 2.0                                                                                                                                                                   |                                                         |
| Rear ports                  | Four USB 3.0, two USB 2.0, one serial (9-pin), two ethernet (RJ-45), one RJ-45 (dedicate/share mgmt), one VGA, one DisplayPort.<br>Optional two serial ports via PCIe adapter |                                                         |
| Noise emissions             | Operating: < 5.2 Bels. Idle: < 5.0 Bels (Mainstream configuration)                                                                                                            |                                                         |
| Environmental specification | RoHS-compliant.                                                                                                                                                               |                                                         |
|                             | Temperature - operating                                                                                                                                                       | 50 °F to 95 °F (10 °C to 35 °C)                         |
|                             | Temperature - storage (with package)                                                                                                                                          | -40 o C to 70 o C                                       |
|                             | Altitude - operating                                                                                                                                                          | Supported Altitude (unpressurized): 0-10000ft (0-3048m) |
|                             | Humidity - operating                                                                                                                                                          | 10%-80%, non-condensing                                 |
|                             | Humidity - storage (with package)                                                                                                                                             | 10%-90%, non-condensing                                 |

## Expansion slots and disk bays

Supports one PCI-Express slot via riser card, half-length, full-height, PCIe 3.0 x8

