# ThinkSystem SD530 Platform Specifications

| Components | Specification |
|---|---|
| Form factor | Half-wide, 1U compute node |
| Dimensions | Height: 41 mm (1.7 in). Width: 222 mm (8.8 in). Depth: 562 mm (22.2 in) |
| Chassis support | ThinkSystem D2 Enclosure. 2U. Up to 4 ThinkSystem SD530 servers per enclosure |
| Weight | Maximum configuration: 16.6 lb (7.5 kg) |
| Processor | Up to two 165W Intel Xeon Scalable family processors, Bronze, Silver, Gold, or Platinum. Up to 28 cores at 2.1GHz, up to 3.6GHz with 4 cores. Up to two UPI (Ultra Path Interconnect) links at maximum 10.4GT/s each |
| Chipset | Intel C624 Platform Controller Hub |
| Memory | Up to 12 or 16 DIMM sockets depending on the processor selected. Each processor supports up to 6 or 8 DIMM sockets. DDR4-2666. RDIMMs and LRDIMMs are supported, but memory types cannot be intermixed. |
| Memory capacity | 16 DIMMs models:<br>RDIMMs:   Up to 512GB with 16x 32GB RDIMMs and two processors<br>LRDIMMs: Up to 1TB with 16x 64GB LRDIMMs and two processors<br>12 DIMMs models:<br>RDIMMs:   Up to 384GB with 12x 32GB RDIMMs and two processors<br>LRDIMMs: Up to 768GB with 12x 64GB LRDIMMs and two processors |
| Memory protection | ECC, Chipkill protection (for x4-based memory DIMMs), memory mirroring, and memory sparing |

| Storage controllers | Supports the following RAID adapters: |
|---|---|

| Adapter | Interface | Drive type | RAID levels | JBOD | Cache | Cache protection | FastPath |
|---|---|---|---|---|---|---|---|
| Onboard Intel RSTe | 6Gbps SATA | SATA | 0/1/10/5 | Yes | None | None | No |
| 530-8i | 12Gbps SAS | SATA/SAS | 0/1/10/5 | Yes | None | None | Yes |

| Components | Specification |
|---|---|
| Disk drive bays | Up to four 2.5" hot-swap disk bays, or up to six 2.5" hot-swap disk bays, or up to six 2.5" hot-swap disk bays with two AnyBay. SAS support requires 530-8i. Optional one or two internal M.2 SSD for boot, dual M.2 SSD supports mirroring |

| Internal storage | | |
|---|---|---|
| | 2.5" NVMe SSD | 800GB/960GB/1.6TB/1.92TB |
| | 2.5" HDD, SATA6Gbps, 7,2K | 1TB/2TB |
| | 2.5" HDD, SAS12Gbps, 7,2K | 2TB |
| | 2.5" HDD, SAS12Gbps, 7,2K, SED | 1TB/2TB |
| | 2.5" HDD, SAS12Gbps, 15K | 300GB/600GB/900GB |
| | 2.5" HDD, SAS12Gbps, 10K | 300GB/600GB/900GB/1.2TB/1.8TB/2.4TB |
| | 2.5" HDD, SAS12Gbps, 10K, SED | 2.4TB |
| | 2.5" SSD, SATA6Gbps | 240GB/480GB/960GB/1.92TB/3.84TB |
| | 2.5" SSD, SAS12Gbps | 400GB/800GB/1.6TB/3.84TB/7.68TB/15.36TB |
| | M.2 SATA SSD | 32GB/128GB |

| Components | Specification |
|---|---|
| Network interfaces | Two 10 GbE ports, SFP+ or RJ-45, routed through the Ethernet I/O Module at the rear of the D2 Enclosure. Networking ports are based on Intel Ethernet Connection X722 in chipset |
| Security features | Power-on and admin password. Trusted Platform Module, TCG 1.2 and 2.0 compliant. Optional TCM, China only |
| Operating systems supported | Microsoft Windows Server 2016, 2012 R2, Red Hat Enterprise Linux 6 and 7 x64, SUSE Linux Enterprise Server 11 and 12 x64, VMware ESXi 6.0 and 6.5 |
| Systems management | Operator panel with system error LED and ID and power controls. XClarity Controller embedded management, XClarity Administrator centralized infrastructure delivery, XClarity Integrator plugins, and XClarity Energy Manager centralized server power management.<br>Optional XClarity Controller Advanced to enable remote control functions.<br>System Management Module (SMM) in the D2 Enclosure provides additional systemsmanagement functions |
| GPU support | None |
| Base warranty | MT 7X21: 3-year limited onsite service with 9x5/NBD |
| Power supply | Supplied by D2 Enclosure |
| Video | Integrated Matrox G200 in XClarity Controller |
| Front ports | Optional KVM breakout module for one USB 3.0 and one console breakout cable port for local KVM and serial ports.<br>KVM breakout module will ocuppy one disk bay on 6x 2.5" disk bay model |

| Components | Specification |
|---|---|
| Environmental specification | Supports ASHRAE A4 with limitations. |

| | |
|---|---|
| Temperature - operating | A4: 5°C to 45°C (41°F to 113°F)<br>A3: 5°C to 40°C (41°F to 104°F)<br>A2: 10°C to 35°C (50°F to 95°F) |
| Temperature - non operating (no package) | -10°C to 60°C (14°F to 140°F) |
| Temperature - non operating (with package) | -40°C to 70°C (-40°F to 158°F) |
| Altitude - operating | (Unpressurized): 0-10000ft (0-3048m) |
| Humidity - operating, non-condensing | A4: 8%~90%. A3:8%~85%. A2:20%~80% |
| Humidity - storage (with package), non-condensing | 8%~90% |

*Models should meet the following requirements to support A3 and A4:*
- *NVMe drives not installed*
- *M.2 drives not installed*

## Expansion slots

Supports one PCIe 3.0 x16 low-profile slot, or two PCIe 3.0 x8 low-profile slots.
Slots are housed in I/O shuttle in rear of the D2 Enclosure
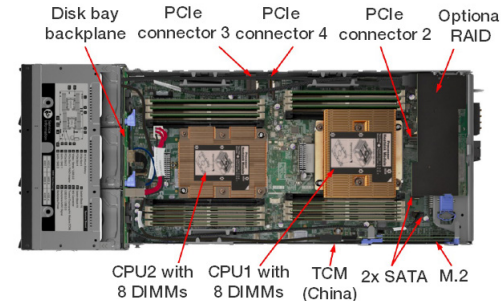


## Backplane and memory DIMM sockets supports by processor

| Maxium DIMM Sockets | 12 DIMMs | | 16 DIMMs | |
|---|---|---|---|---|
| Backplane | 2x2 | 2x3 | 2x2 | 2x3 |
| Xeon Bronze 3104 | Yes | Yes | Yes | No |
| Xeon Bronze 3106 | Yes | Yes | Yes | No |
| Xeon Silver 4108 | Yes | Yes | Yes | No |
| Xeon Silver 4109T | Yes | No | No | No |
| Xeon Silver 4110 | Yes | Yes | Yes | No |
| Xeon Silver 4112 | Yes | Yes | Yes | No |
| Xeon Silver 4114 | Yes | Yes | Yes | No |
| Xeon Silver 4116 | Yes | Yes | Yes | No |
| Xeon Gold 5115 | Yes | Yes | Yes | No |
| Xeon Gold 5118 | Yes | Yes | Yes | No |
| Xeon Gold 5120 | Yes | Yes | Yes | No |
| Xeon Gold 5120T | Yes | No | No | No |
| Xeon Gold 5122 | Yes | No | No | No |
| Xeon Gold 6126 | Yes | Yes | No | No |
| Xeon Gold 6130 | Yes | Yes | Yes | No |
| Xeon Gold 6130T | Yes | No | No | No |
| Xeon Gold 6134 | Yes | No | No | No |
| Xeon Gold 6136 | Yes | No | No | No |
| Xeon Gold 6138 | Yes | Yes | No | No |
| Xeon Gold 6138T | Yes | No | No | No |
| Xeon Gold 6140 | Yes | Yes | No | No |
| Xeon Gold 6142 | Yes | No | No | No |
| Xeon Gold 6148 | Yes | No | No | No |
| Xeon Gold 6150 | Yes | No | No | No |
| Xeon Gold 6152 | Yes | Yes | No | No |
| Xeon Platinum 8153 | Yes | Yes | Yes | No |
| Xeon Platinum 8156 | Yes | No | No | No |
| Xeon Platinum 8158 | Yes | No | No | No |
| Xeon Platinum 8160 | Yes | No | No | No |
| Xeon Platinum 8164 | Yes | No | No | No |
| Xeon Platinum 8170 | Yes | No | No | No |
| Xeon Platinum 8176 | Yes | No | No | No |