# ThinkStation P500 Platform Specifications

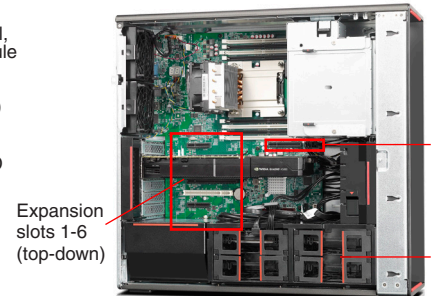


| Components | Specification |
|---|---|
| Chipset | Intel C612 Platform Controller Hub (PCH) |
| System mgmt | Intel Active Management Technology 9 |
| Processor | Up to one 145W **Intel Xeon E5-2600 v3** family processors,<br>Or up to one 140W **Intel Xeon E5-1600 v**3 family processor:<br>E5-2699 v3 18C/2.3GHz/45MB/145W/DDR4-2133<br>E5-2698 v3 16C/2.3GHz/40MB/135W/DDR4-2133<br>E5-2697 v3 14C/2.6GHz/35MB/145W/DDR4-2133<br>E5-2695 v3 14C/2.3GHz/35MB/120W/DDR4-2133<br>E5-2690 v3 12C/2.6GHz/30MB/135W/DDR4-2133<br>E5-2685 v3 12C/2.6GHz/30MB/120W/DDR4-2133<br>E5-2683 v3 14C/2GHz/35MB/120W/DDR4-2133<br>E5-2680 v3 12C/2.5GHz/30MB/120W/DDR4-2133<br>E5-2670 v3 12C/2.3GHz/30MB/120W/DDR4-2133<br>E5-2667 v3 8C/3.2GHz/20MB/135W/DDR4-2133<br>E5-2660 v3 10C/2.6GHz/25MB/105W/DDR4-2133<br>E5-2650L v3 12C/1.8GHz/30MB/65W/DDR4-2133<br>E5-2650 v3 10C/2.3GHz/25MB/105W/DDR4-2133<br>E5-2643 v3 6C/3.4GHz/20MB/135W/DDR4-2133<br>E5-2640 v3 8C/2.6GHz/20MB/90W/DDR4-1866<br>E5-2637 v3 4C/3.5GHz/15MB/135W/DDR4-2133<br>E5-2630L v3 8C/1.8GHz/20MB/55W/DDR4-1866<br>E5-2630 v3 8C/2.4GHz/20MB/85W/DDR4-1866<br>E5-2623 v3 4C/3GHz/10MB/105W/DDR4-1866<br>E5-2620 v3 6C/2.4GHz/15MB/85W/DDR4-1866<br>E5-2609 v3 6C/1.9GHz/15MB/85W/DDR4-1600<br>E5-2603 v3 6C/1.6GHz/15MB/85W/DDR4-1600<br>E5-1680 v3 8C/3.2GHz/20MB/140W/DDR4-2133<br>E5-1660 v3 8C/3GHz/20MB/140W/DDR4-2133<br>E5-1650 v3 6C/3.5GHz/15MB/140W/DDR4-2133<br>E5-1630 v3 4C/3.7GHz/10MB/140W/DDR4-2133<br>E5-1620 v3 4C/3.5GHz/10MB/140W/DDR4-2133<br>E5-1607 v3 4C/3.1GHz/10MB/140W/DDR4-1866<br>E5-1603 v3 4C/2.8GHz/10MB/140W/DDR4-1866 |
| Coprocessor | None |
| Memory DIMM slots | 8 DIMM sockets, 4-channel capable. RDIMM and LRDIMM (cannot be intermixed), ECC, DDR4-2133 |
| Memory capacity | 512GB (LRDIMM)/256GB (RDIMM) |
| Graphics, GPU computing, coprocessors | Two PCIe 3.0 x16 slots, up to 2 graphics, GPU computing adapters per system<br>PSU: Maximum quantity of adapters supported per system<br>490W: 1x150W+1x75W (only supports onboard SATA controller)<br>650W: 1x225W+1x75W, or 2x150W |
| RAID controller | **RAID 0, 1, 5, 10** with onboard SATA controller in chipset, SATA 6Gb/s.<br>**RAID 0, 1, 5, 10** with optional LSI RAID flex adapter, 12Gb/s SAS and SATA.<br>**RAID 0, 1, 5, 6, 10** with optional LSI 9364-8i PCIe adapter, 1GB memory, optional 1GB flash with super capacitor, 12Gb/s SAS and SATA |
| Drive Bays | Two external 5.25" bays, four internal 3.5" bays (see right) |
| Media reader | Optional 9-in-1 USB 2.0 or 29-in-1 USB 3.0 reader |
| Flex connector | One flex connectors (see right), supports one of the following:<br>• Up to one LSI RAID flex adapter for SATA/SAS RAID<br>• Up to one Multi-I/O flex adapters for one PCIe SSD<br>• Up to one M.2 flex adapters for one M.2 SSD |
| Network interfaces | Integrated one Gigabit Ethernet (Intel i218LM), supports Wake-on-LAN.<br>Optional discrete Ethernet is available |
| HD Audio | Realtek ALC662 codec |
| TPM | TCG 1.2-compliant |
| Power supply | One fixed 490 watts, autosensing, 90%, 80 PLUS Gold qualified;<br>or one fixed 650 watts, autosensing, 92%, 80 PLUS Platinum qualified |
| Front ports | Four USB 3.0 (one Diagnostic, one Always On),<br>one combo audio/microphone jack (3.5mm) |
| Rear ports | Fou USB 2.0, four USB 3.0, one serial (9-pin), one ethernet (RJ-45),<br>three analog audio ports (line-in, line-out, mic-in), two PS/2 |
| IEEE 1394 | 1 front, 1 rear, via 1394 adapter, selected models |
| Thunderbolt | 1 Thunderbolt via optional PCIe adapter. Uses slot 6. |
| Mechanical | • 36-liter: 175mm/6.89" W x 470mm/18.5" D x 440mm/17.32" H (with feet)<br>• Tool-less parts: power supply, disk drive, fans, adapter retention<br>• 48.94 lb (22.2kg) max configuration |
| Base warranty | 3-year limited onsite service with 9x5/NBD |

## Drive Bays and Expansion slots



2 x 5.25", for half-height optical, or up to one optional flex module (Flex module supports one or more of the following options: 9.5mm optical/29-in-1 USB 3.0 reader/front IEEE 1394/front eSATA),
or up to two optional front HDD bays




Slot 1: PCIe 3.0 x4, Half length, full height
Slot 2: PCIe 3.0 x16, Full length, full height
Slot 3: PCIe 2.0 x1, Full length, full height
Slot 4: PCIe 3.0 x16, Full length, full height
Slot 5: PCI, Full length, full height
Slot 6: PCIe 2.0 x4, Half length, full height

*Note:*
*1.When LSI RAID flex adapter or 9364-8i adapter is installed, each HDD bay (HDD 1 - 4) can support 2 disk drives (1 x 3.5" drives + 2.5" SATA/SAS SSD, or 2 x 2.5" SATA/SAS SSD).*
*2. More than 4 drives requires LSI RAID flex adapter or 9364-8i adapter.*

## Supporting NVIDIA graphics and GPU computing list

| Adapter | Cores | Memory | Power | SLI | Connector*** |
|---|---|---|---|---|---|
| NVS 310 | 48 | 1GB | 19.5W | | 2xDP |
| NVS 315 | 48 | 1024MB | 19.5W | | 2xDVI-I SL/2xDP |
| NVS 510 | 192 | 2048MB | 33.4W | | 4xmini DP |
| Quadro 410 | 192 | 512MB | 36.7W | | DVI-I DL+DP |
| Quadro K600 | 192 | 1GB | 41W | | DVI-I DL+DP |
| Quadro K2000 | 384 | 2GB | 51.1W | | DVI-I DL+2xDP |
| Quadro K2000D | 384 | 2GB | 51.1W | | DVI-I DL+DVI-D DL+mini DP |
| Quadro K4000 | 768 | 3GB | 80W | | DVI-I DL+2xDP |
| Quadro K5000 | 1536 | 4GB | 122W | | DVI-I DL+DVI-D DL+2xDP |
| Quadro K6000 | 2880 | 12GB | 225W | | DVI-I DL+DVI-D DL+2xDP |
| Quadro K420 | 192 | 2GB | 41W | | DVI-I DL+DP |
| Quadro K620 | 384 | 2GB | 45W | | DVI-I DL+DP |
| Quadro K2200 | 640 | 4GB | 68W | | DVI-I DL+2xDP |
| Quadro K4200 | 1344 | 4GB | 108W | | DVI-I DL+2xDP |
| Quadro K5200 | 2304 | 8GB | 150W | SLI | DVI-I DL+DVI-D DL+2xDP |
| Quadro M4000 | 1664 | 8GB | 120W | | 4xDP |
| Quadro M5000 | 2048 | 8GB | 150W | | DVI-I DL+4xDP |
| Quadro M6000 | 3072 | 12GB | 250W | | DVI-I DL+4xDP |
| Tesla K20 | 2496 | 5GB | 225W | | |
| GRID K2 | 3072 | 8GB | 225W | | |

*** DL = Dual link, SL = Single Link, DP = DisplayPort 1.2*

## Supporting storage list

(SAS drive needs LSI RAID flex adapter or 9364-8i adapter)

| | |
|---|---|
| 3.5" SATA (7.2K 6Gbs HDD) | 500GB/1TB/2TB/3TB/4TB/ 1TB hybrid/2TB hybrid |
| 2.5" SAS (15K 12Gbs HDD) | 300GB/450GB/600GB |
| 2.5" SAS SSD (12Gbs) | 200GB/400GB/800GB |
| 2.5" SATA SSD (6Gbs) | 128GB/180GB/240GB/ 256GB/480GB/ 512GB/1TB (Optional OPAL) |
| M.2 SSD | 256 GB/512GB (Optional NVMe) |
| PCIe SSD adapter | 410GB/1.6TB |

## Environment specification and certifications

| | |
|---|---|
| **Temperature** | |
| Operating: | 50 °F to 95 °F (10 °C to 35 °C) |
| Storage: | -10 °C to 60 °C, no package<br>-40 °C to 60 °C, with package |
| **Altitude** | |
| Operating: | -50~10000ft (-15.2~3048m) |
| **Humidity** | |
| Operating: | 10%~80%, non-condensing |
| Storage: | 10%~90%, non-condensing |

RoHS-compliant/EPEAT Gold rating on all models, ENERGY STAR 6.1 qualified on selected models.

For the latest list of ISV certifications, please visit *www.lenovo.com/support/ISV*
For a list of all supported options, please visit *https://download.lenovo.com/pccbbs/options_iso/ocm_april_2016.xlsx sheet*

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| Model | 30A70034++ |
| --- | --- |
| Product | ThinkStation P500 |
| Region | EMEA |
| Machine Type | 30A7 |
| TopSeller | TopSeller |
| Processor | Xeon E5-1620 v3 4C/3.5GHz/10MB/140W/DDR4-2133 |
| Graphics | NVIDIA Quadro K2200 4GB |
| Memory DIMMs/Type | 2x8GB RDIMM DDR4-2133 ECC |
| RAID Controller | Onboard |
| Max Drives in 3.5" Bays | 4 |
| Storage | 2x1TB HDD 7.2K 3.5" SATA6Gbs |
| Optical | HH DVD±RW |
| Media Reader | 9-in-1 |
| Power Supply | 490W 90% |
| Add-on Ports | None |
| Keyboard / Mouse | USB / USB Optical |
| Operating System | Windows 8.1 DG Windows 7 Pro 64 |
| Warranty | 3-year |
| Global | No |
| Ann Date (mm/yy) | 02/15 |


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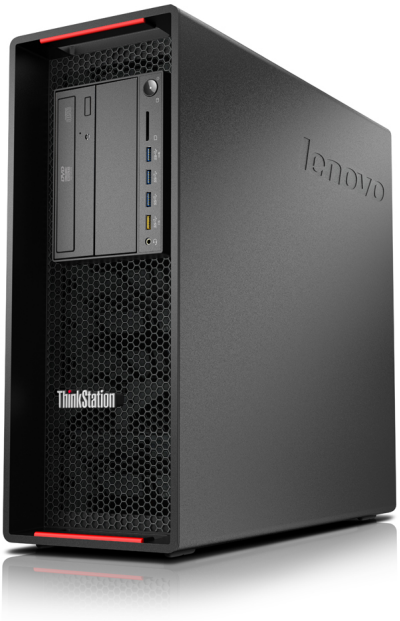
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