ThinkStation P900 Platform Specifications

Components	Specification
Chipset	Intel C612 Platform Controller Hub (PCH)
System mgmt	Intel Active Management Technology 9
Processor	Up to two 160W **Intel Xeon E5-2600 v3** family processors, Or up to one 140W **Intel Xeon E5-1600 v**3 family processor:

E5-2699 v3	18C/2.3GHz/45MB/145W/DDR4-2133
E5-2698 v3	16C/2.3GHz/40MB/135W/DDR4-2133
E5-2697 v3	14C/2.6GHz/35MB/145W/DDR4-2133
E5-2695 v3	14C/2.3GHz/35MB/120W/DDR4-2133
E5-2690 v3	12C/2.6GHz/30MB/135W/DDR4-2133
E5-2687W v3	10C/3.1GHz/25MB/160W/DDR4-2133
E5-2685 v3	12C/2.6GHz/30MB/120W/DDR4-2133
E5-2683 v3	14C/2GHz/35MB/120W/DDR4-2133
E5-2680 v3	12C/2.5GHz/30MB/120W/DDR4-2133
E5-2670 v3	12C/2.3GHz/30MB/120W/DDR4-2133
E5-2667 v3	8C/3.2GHz/20MB/135W/DDR4-2133
E5-2660 v3	10C/2.6GHz/25MB/105W/DDR4-2133
E5-2650L v3	12C/1.8GHz/30MB/65W/DDR4-2133
E5-2650 v3	10C/2.3GHz/25MB/105W/DDR4-2133
E5-2643 v3	6C/3.4GHz/20MB/135W/DDR4-2133
E5-2640 v3	8C/2.6GHz/20MB/90W/DDR4-1866
E5-2637 v3	4C/3.5GHz/15MB/135W/DDR4-2133
E5-2630L v3	8C/1.8GHz/20MB/55W/DDR4-1866
E5-2630 v3	8C/2.4GHz/20MB/85W/DDR4-1866
E5-2623 v3	4C/3GHz/10MB/105W/DDR4-1866
E5-2620 v3	6C/2.4GHz/15MB/85W/DDR4-1866
E5-2609 v3	6C/1.9GHz/15MB/85W/DDR4-1600
E5-2603 v3	6C/1.6GHz/15MB/85W/DDR4-1600
E5-1680 v3	8C/3.2GHz/20MB/140W/DDR4-2133
E5-1660 v3	8C/3GHz/20MB/140W/DDR4-2133
E5-1650 v3	6C/3.5GHz/15MB/140W/DDR4-2133
E5-1630 v3	4C/3.7GHz/10MB/140W/DDR4-2133
E5-1620 v3	4C/3.5GHz/10MB/140W/DDR4-2133
E5-1607 v3	4C/3.1GHz/10MB/140W/DDR4-1866
E5-1603 v3	4C/2.8GHz/10MB/140W/DDR4-1866

Coprocessor	Up to one Intel Xeon Phi Coprocessor 3120A, PCIe 2.0 x16 adapter, 57 cores, 1.1GHz, 28.5MB L2 cache, 6GB memory, 300W
Memory DIMM slots	16 DIMM sockets (8 DIMMs per processor), 8-channel capable (4-channel per processor). RDIMM or LRDIMM (cannot be intermixed), ECC, DDR4-2133
Memory capacity	1024GB(LRDIMM)/512GB (RDIMM), 2nd CPU is needed
Graphics and GPU computing	Four PCIe 3.0 x16 slots, two slots per processor. Up to 4 graphics, GPU computing, or coprocessors adapters per system. 2nd CPU is needed.

Installed CPU	Maximum quantity of PCIe x16 adapters per system (by power)
1	1x300W+1x75W or 2x225W
2	2x300W+2x75W, or 1x300W+2x225W+1x75W, or 3x225W+1x150W

Note: PSU needs to operate at full 1300W.

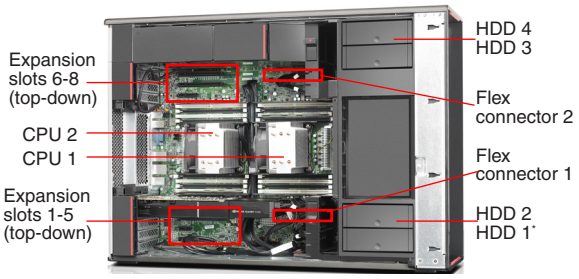
Disk drive controller	**RAID 0, 1, 5, 10** with onboard SATA controller in chipset, 6Gb/s SATA. **RAID 0, 1, 5, 10** with optional LSI RAID flex adapter, 12Gb/s SAS and SATA. **RAID 0, 1, 5, 6, 10** with optional LSI 9364-8i PCIe adapter, 1GB memory, optional 1GB flash with super capacitor, 12Gb/s SAS and SATA
Drive Bays	Three external 5.25" bays, four internal 3.5" bays (see right)
Flex connector	Two flex connectors (see right), one per processor. Supports one of the following: • Up to one LSI RAID flex adapter for SATA/SAS RAID. • Up to two Multi-I/O adapters for four PCIe SSD (two PCIe SSD per adapter). • Up to two M.2 flex adapters for four M.2 SSD (two M.2 SSD per adapter)
Network interfaces	Integrated two-port Gigabit Ethernet (Intel i218LM and i210AT), supports Wake-on-LAN. Optional discrete Ethernet is available
HD Audio	Realtek ALC662 codec
TPM	TCG 1.2-compliant
Power supply	One fixed 1300 watts, autosensing, 92% PSU, 80 PLUS Platinum qualified *Note: PSU will automatically operate in 1120W (restricted) mode if the system line input is 100-110V. For other supported system line input voltages, the PSU will operate at the full 1300W.*
Front ports	Four USB 3.0 (one Diagnostic, one Always On), one combo audio/microphone jack (3.5mm)
Rear ports	Four USB 2.0, four USB 3.0 (blue), one serial (9-pin), two ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in), two PS/2
Media reader	Optional 29-in-1 USB 3.0 or 9-in-1 USB 2.0 card reader
IEEE 1394	Up to one 6-pin port on rear, one 6-pin port on front, 1394a-2000, 400Mbps

Components	Specification
Thunderbolt	Up to one Thunderbolt via optional PCIe adapter. Uses slot 5.
Mechanical	• 55-liter: 200mm/7.87" W x 620mm/24.4" D x 446mm/17.56" H (with feet) • Tool-less parts: power supply, disk drive, fans, adapter retention • 65.92 lb (29.9kg) max configuration
Base warranty	3-year limited onsite service with 9x5/NBD

Drive Bays and Expansion slots



3 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 x16, Full length, full height,
Slot 2: PCIe 2.0 x1, Full length, full height
Slot 3: PCIe 3.0 x16, Full length, full height
Slot 4: PCIe 2.0 x1, Full length, full height
Slot 5: PCIe 2.0 x4, Half length, full height
Slot 6: PCIe 3.0 x16, Full length, full height, CPU2 needed
Slot 7: PCIe 3.0 x16, Full length, full height, CPU2 needed
Slot 8: PCIe 2.0 x4, Full length, full height, CPU2 needed

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). SSD drives should be 7mm*
2. *If flex connector 1 is used, slot 2 is limited to half length.*
3. *If flex connector 2 is used, slot 6 and 7 are limited to half length.*
4. *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	SLI	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
2.5" SAS (15K 12Gbs HDD)	300GB/450GB/600GB
2.5" SATA SSD (6Gbs)	128GB/180GB/240GB/ 256GB/480GB/ 512GB/1TB (Optional OPAL)
M.2 SSD	256 GB/512GB (Optional NVMe)
2.5" PCIe SSD	400GB NVMe
PCIe SSD adapter	410GB

Environment specification and certifications

Temperature	
Operating:	50 °F to 95 °F (10 °C to 35 °C)
Storage:	-10 °C to 60 °C, no package -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	30A5001A++
Product	ThinkStation P900
Region	EMEA
Machine Type	30A5
TopSeller	TopSeller
Processor	2xXeon E5-2670 v3 12C/2.3GHz/30MB/120W/DDR4-2133
Graphics	Open
Memory	2x16GB RDIMM DDR4-2133 ECC
RAID Controller	Onboard
Max Drives in 3.5" Bays	4
Storage	1x512GB SSD 2.5" SATA6Gbs
Optical	HH DVD±RW
Media Reader	9-in-1
Power Supply	1300W 92%
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)	06/15


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