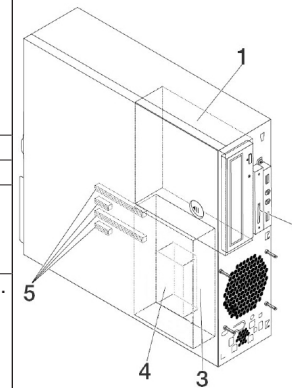


ThinkStation P310 SFF Platform Specifications

Product Specifications Reference (PSREF)

Components	Specification																																			
Chipset	Intel C236 Chipset																																			
Intel AMT	Intel Active Management Technology 11 supported on Xeon models																																			
Processor	One LGA1151 socket, supports one the following processors:																																			
	Xeon E3-1280 v5	4C/3.7GHz/8MB/80W/DDR4-2133																																		
	Xeon E3-1275 v5	4C/3.6GHz/8MB/80W/DDR4-2133																																		
	Xeon E3-1270 v5	4C/3.6GHz/8MB/80W/DDR4-2133																																		
	Xeon E3-1245 v5	4C/3.5GHz/8MB/80W/DDR4-2133																																		
	Xeon E3-1240 v5	4C/3.5GHz/8MB/80W/DDR4-2133																																		
	Xeon E3-1230 v5	4C/3.4GHz/8MB/80W/DDR4-2133																																		
	Xeon E3-1225 v5	4C/3.3GHz/8MB/80W/DDR4-2133																																		
	Xeon E3-1220 v5	4C/3GHz/8MB/80W/DDR4-2133																																		
	Core i7-6700	4C/3.4GHz/8MB/65W/DDR4-2133																																		
	Core i5-6600	4C/3.3GHz/6MB/65W/DDR4-2133																																		
	Core i5-6500	4C/3.2GHz/6MB/65W/DDR4-2133																																		
	Core i5-6400	4C/2.7GHz/6MB/65W/DDR4-2133																																		
	Core i3-6320	2C/3.9GHz/4MB/51W/DDR4-2133																																		
Core i3-6300	2C/3.8GHz/4MB/51W/DDR4-2133																																			
Core i3-6100	2C/3.7GHz/3MB/51W/DDR4-2133																																			
Memory DIMM slots	4 DIMM slots, 2-channel (integrated memory controller in processor)																																			
Memory type/capacity	Up to 64GB ECC/non-ECC (4 x 16GB), DDR4-2133, UDIMM																																			
Intel HD Graphics in processor	Integrated Intel HD P530 in Xeon E3-12x5 v5 processors; or Intel HD 530 in Core i7, i5, or i3 processors. Works along with discrete graphics to support multi-display, enables three display connectors (2 DP, 1 VGA) on rear. Max Resolution: 4096 x 2304																																			
Discrete graphics	Two PCI Express 3.0 x16 slots for graphics adapters. Up to two Quadro K1200. Supports the following NVIDIA graphics adapters:																																			
	<table border="1"> <thead> <tr> <th>Adapter</th> <th>Cores</th> <th>Memory</th> <th>Power</th> <th>Connector</th> </tr> </thead> <tbody> <tr> <td>NVS 310</td> <td>48</td> <td>1GB</td> <td>19.5W</td> <td>2xDP</td> </tr> <tr> <td>NVS 315</td> <td>48</td> <td>1GB</td> <td>19.5W</td> <td>2xDVI-I SL/2xDP</td> </tr> <tr> <td>NVS 510</td> <td>192</td> <td>2GB</td> <td>33.4W</td> <td>4xmini DP</td> </tr> <tr> <td>Quadro K420</td> <td>192</td> <td>2GB</td> <td>41W</td> <td>1xDVI-I DL+1xDP</td> </tr> <tr> <td>Quadro K620</td> <td>384</td> <td>2GB</td> <td>45W</td> <td>1xDVI-I DL+1xDP</td> </tr> <tr> <td>Quadro K1200</td> <td>512</td> <td>4GB</td> <td>45W</td> <td>4xminiDP</td> </tr> </tbody> </table>	Adapter	Cores	Memory	Power	Connector	NVS 310	48	1GB	19.5W	2xDP	NVS 315	48	1GB	19.5W	2xDVI-I SL/2xDP	NVS 510	192	2GB	33.4W	4xmini DP	Quadro K420	192	2GB	41W	1xDVI-I DL+1xDP	Quadro K620	384	2GB	45W	1xDVI-I DL+1xDP	Quadro K1200	512	4GB	45W	4xminiDP
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Onboard drive controller	Five onboard SATA 6.0Gb/s connectors for optical and disk drives plus one SATA connector for optional eSATA. RAID 0, 1, 5* support * RAID 5 supports three 2.5" SSD drives only.																																			
Drive Bays	One external 5.25" bay, one internal 3.5" bay (see right). Up to one 9.5mm optical + 2 x 3.5" disk drive bays + 1 x 2.5" disk drive bay + one M.2 NVMe SSD																																			
Supporting disk drives	<table border="1"> <tbody> <tr> <td>3.5" SATA HDD (7.2K 6Gbs)</td> <td>500GB/1TB/2TB/3TB/4TB/6TB/1TB hybrid/2TB hybrid</td> </tr> <tr> <td>2.5" SATA SSD (6Gbs)</td> <td>128GB/180GB*/240GB*/256GB*/480GB*/512GB*/1TB*</td> </tr> <tr> <td>M.2 NVMe SSD</td> <td>256GB*/512GB*/1TB*, via PCIe 3.0 x4 adapter</td> </tr> </tbody> </table>	3.5" SATA HDD (7.2K 6Gbs)	500GB/1TB/2TB/3TB/4TB/6TB/1TB hybrid/2TB hybrid	2.5" SATA SSD (6Gbs)	128GB/180GB*/240GB*/256GB*/480GB*/512GB*/1TB*	M.2 NVMe SSD	256GB*/512GB*/1TB*, via PCIe 3.0 x4 adapter																													
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M.2 NVMe SSD	256GB*/512GB*/1TB*, via PCIe 3.0 x4 adapter																																			
	** Includes OPAL options																																			
Max internal storage	9TB (2 x 4TB 3.5" HDDs + 1 x 1TB 2.5" SSD) plus one 512GB M.2 NVMe SSD																																			
Media reader	9-in-1 card reader. Optional 29-in-1 card reader on selected models																																			
Power supply	210 watts with variable speed fan, autosensing, 85% PSU, Climate Savers Computing Bronze, 80 PLUS Bronze qualified																																			
Onboard Ethernet	One onboard gigabit ethernet, Intel I219LM, supports Wake-on-LAN																																			
HD Audio	Realtek ALC662 codec																																			
TPM	Standard, TCG 1.2-compliant																																			
Front ports	Two USB 3.0, microphone (3.5mm), headphone (3.5mm)																																			
Rear ports	1 VGA and 2 DisplayPort (functional only on Intel HD Graphics models), two USB 2.0, four USB 3.0 (blue), one serial (9-pin), one ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in)																																			
Additional ports	Supports the following optional ports: • Two IEEE 1394 (one on rear and one on front flex module) via PCIe adapter, up to one adapter per system. Supports one of the following per system: • Two rear USB 3.0 per PCIe adapter. • One front eSATA (on flex module), or one rear eSATA via cable and PCIe slot bracket, up to one eSATA port per system. • One additional serial port via cable. • One parallel port via cable																																			

Components	Specification
Mechanical	<ul style="list-style-type: none"> Raven black color; metal case 4.02"W x 15.53"D x 13.31"H 102mm W x 394.5mm D x 338mm H 17.2 lb (7.9kg) max configuration 12.9-liter
	Environmental certifications
Limited warranty	1 or 3-year limited onsite service with 9x5/NBD. Some parts are Customer Replaceable Units.



Drive Bays and PCIe Slots

Bay 1	5.25", supports one of the following: HH optical/flex module***/9.5mm optical+3.5" HDD bay/ 3.5" HDD bay/Front Access Storage Enclosure *** Flex module supports one or more of the following: 9.5mm optical/ 29-in-1 reader/front IEEE 1394/front eSATA. Up to one flex module is supported per system.
Bay 2	Optional 9-in-1 single slot reader
Bay 3	Standard 3.5" HDD bay
Bay 4	Optional 2.5" HDD bay (under Bay 3)
5 - Slots	Four PCIe slots (top-down): Slot 1: Low Profile, PCIe 3.0 x16 (near CPU) Slot 2: Low Profile, PCIe 3.0 x1 Slot 3: Low Profile, PCIe 3.0 x16 (x4 elec) Slot 4: Low Profile, PCIe 3.0 x1

For the list of ISV certifications, please visit www.thinkworkstations.com/isv-certifications/
For a list of all supported options, please visit https://download.lenovo.com/pccbbs/options_iso/ocm_december_2016.xlsx sheet