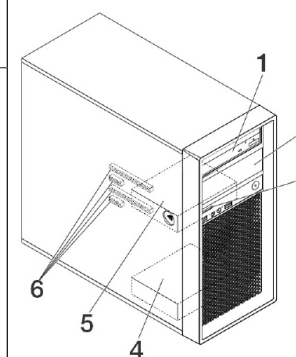


# ThinkStation P310 Tower Platform Specifications

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/3.3GHz/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 on 250 watts models. Or up to two Quadro K2200, or up to one Quadro M4000 on 400 watts models. Supports the following NVIDIA graphics adapters:                                                                                                      |                                                 |        |       |                 |
|                                | 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        |
|                                | Quadro K2200                                                                                                                                                                                                                                                                                                                     | 640                                             | 4GB    | 68W   | 1xDVI-I DL+2xDP |
|                                | Quadro M2000                                                                                                                                                                                                                                                                                                                     | 768                                             | 4GB    | 75W   | 4xDP            |
|                                | Quadro M4000                                                                                                                                                                                                                                                                                                                     | 1664                                            | 8GB    | 120W  | 4xDP            |
| 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, 10 support                                                                                                                                                                                            |                                                 |        |       |                 |
| Drive Bays                     | Two external 5.25" bays, two internal 3.5" bays (see right). Up to one 9.5mm optical plus 4 x 3.5" disk drive bays plus one M.2 NVMe SSD                                                                                                                                                                                         |                                                 |        |       |                 |
| Supporting disk drives         | 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     |        |       |                 |
| ** Includes OPAL options       |                                                                                                                                                                                                                                                                                                                                  |                                                 |        |       |                 |
| Max internal storage           | 16TB (4 x 4TB 3.5" HDDs) plus 512GB M.2 NVMe SSD                                                                                                                                                                                                                                                                                 |                                                 |        |       |                 |
| Media reader                   | 9-in-1 card reader. Optional 29-in-1 card reader on selected models                                                                                                                                                                                                                                                              |                                                 |        |       |                 |
| Power supply                   | Supports one of the following: <ul style="list-style-type: none"><li>250 watts with variable speed fan, autosensing, 85% PSU, Climate Savers Computing Bronze, 80 PLUS Bronze qualified</li><li>400 watts with variable speed fan, autosensing, 92% PSU, Climate Savers Computing Platinum, 80 PLUS Platinum qualified</li></ul> |                                                 |        |       |                 |
| 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 (for Intel HD Graphics models only), 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)                                                                                                                                    |                                                 |        |       |                 |

| Components                   | Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Additional ports             | Supports the following optional ports:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                              | <ul style="list-style-type: none"> <li>Two IEEE 1394 (one on rear and one on front flex module) via PCIe adapter, up to one adapter per system.</li> </ul> Supports one of the following per system: <ul style="list-style-type: none"> <li>Two rear USB 3.0 per PCIe adapter.</li> <li>One rear Thunderbolt via PCIe adapter.</li> <li>One front eSATA (on flex module), or one rear eSATA via cable and PCIe slot bracket, up to one eSATA port per system.</li> <li>One additional serial port via cable.</li> <li>One parallel port via cable</li> </ul> |
| Mechanical                   | <ul style="list-style-type: none"> <li>Raven black color; metal case</li> <li>6.89"W x 16.77"D x 14.8"H</li> <li>175mm W x 426mm D x 376mm H</li> <li>28.66 lb (13kg) max configuration</li> <li>25-liter</li> </ul>                                                                                                                                                                                                                                                                                                                                         |
| Environmental certifications | GREENGUARD certified/RoHS-compliant/EPEAT Gold rating/ENERGY STAR 6.1 qualified                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Limited warranty             | 3-year limited onsite service with 9x5/NBD. Some parts are Customer Replaceable Units.                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |



## Drive Bays and PCIe Slots

|                 |                                                                                                                                                                                                                                                                                                                     |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bay 1 and Bay 2 | 5.25", support one of the following:<br>HH optical/flex module**/9.5mm optical+3.5" HDD bay/<br>3.5" HDD bay/Front Access Storage Enclosure<br>** Flex module supports one or more of the following: 9.5mm optical/<br>29-in-1 reader/front IEEE 1394/front eSATA<br>Up to one flex module is supported per system. |
| Bay 3           | Optional 9-in-1 single slot reader                                                                                                                                                                                                                                                                                  |
| Bay 4           | Standard 3.5" HDD bay                                                                                                                                                                                                                                                                                               |
| Bay 5           | Standard 3.5" HDD bay                                                                                                                                                                                                                                                                                               |
| 6 -Slots        | Four PCIe slots (top-down):<br>Slot 1: Half length, full height, PCIe 3.0 x16 (near CPU)<br>Slot 2: Half length, full height, PCIe 3.0 x1<br>Slot 3: Half length, full height, PCIe 3.0 x16 (x4 elec)<br>Slot 4: Half length, full height, PCIe 3.0 x1                                                              |

For the list of ISV certifications, please visit [www.thinkworkstations.com/isv-certifications/](http://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](https://download.lenovo.com/pccbbs/options_iso/ocm_december_2016.xlsx) sheet

| Model                             | 30AT004R**                               |
|-----------------------------------|------------------------------------------|
| Product                           | ThinkStation P310 Tower                  |
| Region                            | MEA                                      |
| Machine Type                      | 30AT                                     |
| TopSeller                         | TopSeller                                |
| Processor                         | Core i5-6500 4C/3.2GHz/6MB/65W/DDR4-2133 |
| Graphics                          | Intel HD 530                             |
| Memory (Capacity/Type)            | 1x8GB UDIMM DDR4-2133 Non-ECC            |
| Storage (Capacity/Type/Interface) | 1x1TB HDD 7.2K 3.5" SATA6Gbs             |
| Optical                           | HH DVD±RW                                |
| Media Reader                      | 9-in-1                                   |
| Power Supply                      | 250W 85%                                 |
| Add-on Ports                      | None                                     |
| Discrete Ethernet                 | None                                     |
| Chassis Intrusion Switch          | Switch                                   |
| Keyboard / Mouse                  | USB / USB Optical                        |
| Operating System                  | Windows 10 Pro 64                        |
| Warranty                          | 3-year                                   |
| Global                            | No                                       |
| Ann Date (mm/yy)                  | 07/16                                    |

