

# ThinkStation



Lenovo ThinkStation S30



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# ThinkStation S30 Platform Specifications - I of IV

Product Specifications Reference (PSREF)

Text in red shows that these features only apply to MT type 0568, 0569, and 0606 models, text in green shows that the features are supported on other models except MT type 0568, 0569, and 0606 models

Chipset	Intel C602 Chipset										
Intel AMT	MT type 0568, 0569, and 0606: Intel Active Management Technology 7 Others MT types: Intel Active Management Technology 8										
Processor	One LGA2011 socket, supports one processor from Intel Xeon E5-2600 E5-2600 v2, E5-1600, and E5-1600 v2 family, integrated 4-channel DDR3 memory controller, supports the following:										
	Processor Number	# of Cores	# of Threads	Clock Speed	Max Turbo Frequency	Cache	Intel QPI Speed	# of QPI Links	Max TDP	Memory Speed	Intel vPro technology
	Xeon E5-2603	4	4	1.8 GHz		10 MB	6.4 GT/s	2	80 W	1066MHz	vPro
	Xeon E5-2609	4	4	2.4 GHz		10 MB	6.4 GT/s	2	80 W	1066MHz	vPro
	Xeon E5-2620	6	12	2 GHz	2.5 GHz	15 MB	7.2 GT/s	2	95 W	1333MHz	vPro
	Xeon E5-2630	6	12	2.3 GHz	2.8 GHz	15 MB	7.2 GT/s	2	95 W	1333MHz	vPro
	Xeon E5-2630L	6	12	2 GHz	2.5 GHz	15 MB	7.2 GT/s	2	60 W	1333MHz	vPro
	Xeon E5-2637	2	4	3 GHz	3.5 GHz	5 MB	8 GT/s	2	80 W	1600MHz	vPro
	Xeon E5-2640	6	12	2.5 GHz	3 GHz	15 MB	7.2 GT/s	2	95 W	1333MHz	vPro
	Xeon E5-2643	4	8	3.3 GHz	3.5 GHz	10 MB	8 GT/s	2	130 W	1600MHz	vPro
	Xeon E5-2650	8	16	2 GHz	2.8 GHz	20 MB	8 GT/s	2	95 W	1600MHz	vPro
	Xeon E5-2650L	8	16	1.8 GHz	2.3 GHz	20 MB	8 GT/s	2	70 W	1600MHz	vPro
	Xeon E5-2660	8	16	2.2 GHz	3 GHz	20 MB	8 GT/s	2	95 W	1600MHz	vPro
	Xeon E5-2665	8	16	2.4 GHz	3.1 GHz	20 MB	8 GT/s	2	115 W	1600MHz	vPro
	Xeon E5-2667	6	12	2.9 GHz	3.5 GHz	15 MB	8 GT/s	2	130 W	1600MHz	vPro
	Xeon E5-2670	8	16	2.6 GHz	3.3 GHz	20 MB	8 GT/s	2	115 W	1600MHz	vPro
	Xeon E5-2680	8	16	2.7 GHz	3.5 GHz	20 MB	8 GT/s	2	130 W	1600MHz	vPro
	Xeon E5-2690	8	16	2.9 GHz	3.8 GHz	20 MB	8 GT/s	2	135 W	1600MHz	vPro
	Xeon E5-1603	4	4	2.8 GHz		10 MB			130 W	1066MHz	vPro
	Xeon E5-1607	4	4	3 GHz		10 MB			130 W	1066MHz	vPro
	Xeon E5-1620	4	8	3.6 GHz	3.8 GHz	10 MB			130 W	1600MHz	vPro
	Xeon E5-1650	6	12	3.2 GHz	3.8 GHz	12 MB			130 W	1600MHz	vPro
	Xeon E5-1660	6	12	3.3 GHz	3.9 GHz	15 MB			130 W	1600MHz	vPro
	Xeon E5-2603 v2	4	4	1.8 GHz	1.8 GHz	10 MB	6.4 GT/s	2	80 W	1333MHz	vPro
	Xeon E5-2609 v2	4	4	2.5 GHz	2.5 GHz	10 MB	6.4 GT/s	2	80 W	1333MHz	vPro
	Xeon E5-2620 v2	6	12	2.1 GHz	2.6 GHz	15 MB	7.2 GT/s	2	80 W	1600MHz	vPro
	Xeon E5-2630L v2	6	12	2.4 GHz	2.8 GHz	15 MB	7.2 GT/s	2	60 W	1600MHz	vPro
	Xeon E5-2630 v2	6	12	2.6 GHz	3.1 GHz	15 MB	7.2 GT/s	2	80 W	1600MHz	vPro
	Xeon E5-2637 v2	4	8	3.5 GHz	3.8 GHz	15 MB	8 GT/s	2	130 W	1866MHz	vPro
	Xeon E5-2640 v2	8	16	2 GHz	2.5 GHz	20 MB	7.2 GT/s	2	95 W	1600MHz	vPro
	Xeon E5-2643 v2	6	12	3.5 GHz	3.8 GHz	25 MB	8 GT/s	2	130 W	1866MHz	vPro
	Xeon E5-2650L v2	10	20	1.7 GHz	2.1 GHz	25 MB	7.2 GT/s	2	70 W	1600MHz	vPro
	Xeon E5-2650 v2	8	16	2.6 GHz	3.4 GHz	20 MB	8 GT/s	2	95 W	1866MHz	vPro
	Xeon E5-2660 v2	10	20	2.2 GHz	3 GHz	25 MB	8 GT/s	2	95 W	1866MHz	vPro
	Xeon E5-2667 v2	8	16	3.3 GHz	4 GHz	25 MB	8 GT/s	2	130 W	1866MHz	vPro
	Xeon E5-2670 v2	10	20	2.5 GHz	3.3 GHz	25 MB	8 GT/s	2	115 W	1866MHz	vPro
	Xeon E5-2680 v2	10	20	2.8 GHz	3.6 GHz	25 MB	8 GT/s	2	115 W	1866MHz	vPro
	Xeon E5-2690 v2	10	20	3 GHz	3.6 GHz	25 MB	8 GT/s	2	130 W	1866MHz	vPro
	Xeon E5-2695 v2	12	24	2.4 GHz	3.2 GHz	30 MB	8 GT/s	2	115 W	1866MHz	vPro
	Xeon E5-2697 v2	12	24	2.7 GHz	3.5 GHz	30 MB	8 GT/s	2	130 W	1866MHz	vPro
	Xeon E5-1607 v2	4	4	3 GHz		10 MB			130 W	1600MHz	vPro
	Xeon E5-1620 v2	4	8	3.7 GHz	3.9 GHz	10 MB			130 W	1866MHz	vPro
	Xeon E5-1650 v2	6	12	3.5 GHz	3.9 GHz	12 MB			130 W	1866MHz	vPro
	Xeon E5-1660 v2	6	12	3.7 GHz	4 GHz	15 MB			130 W	1866MHz	vPro

## Notes:

1. ThinkStation S30 support one processor.
2. Intel Xeon processor numbering system is an alpha numeric representation of product line, product family and version. An 'L' suffix will be used to identify a low power processor.  
More details please see [http://www.intel.com/products/processor\\_number](http://www.intel.com/products/processor_number)
3. All information is provided by Intel and may be changed at any time without notice. The information herein is provided "as-is". Intel may update this information in non-scheduled. For latest information, please see <http://ark.intel.com/products/family/59138/Intel-Xeon-Processor-E5-Family/server>

# ThinkStation S30 Platform Specifications - II of IV

Product Specifications Reference (PSREF)

*Text in red shows that these features only apply to MT type 0568, 0569, and 0606 models, text in green shows that the features are supported on other models except MT type 0568, 0569, and 0606 models*

Memory	<b>UDIMM or RDIMM, ECC, DDR3</b> , 4-channel capable, eight 240-pin DIMM sockets, 64GB max (UDIMM, 8GBx8)/256GB max (RDIMM, 32GBx8)					
Additional memory disclaimers	<ul style="list-style-type: none"> <li>Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs</li> <li>Mixing of RDIMM and UDIMM is not supported</li> </ul>					
Graphics adapters and GPU computing	Two PCI Express 3.0 x16 slots for graphics adapters and GPU computing processors, supports NVIDIA SLI technology (Quadro 5000 and Quadro K5000 SLI), NVIDIA Maximus technology, supports the following NVIDIA Quadro, NVS graphics adapters and Tesla GPU computing processors:					
	Memory Size	CUDA Processor Cores	Display Connectors	Max. Displays	# of slots	Power
NVIDIA Quadro and NVS Graphics						
Quadro K6000	12GB	2880	1 dual-link DVI-I 1 dual-link DVI-D 2 DisplayPort	4	2	225W
Quadro K5000	4GB	1536	1 dual-link DVI-I 1 dual-link DVI-D 2 DisplayPort	4	2	122W
Quadro K4000	3GB	768	1 dual-link DVI-I 2 DisplayPort	4*	1	80W
Quadro K2000	2GB	384	1 dual-link DVI-I 2 DisplayPort	4*	1	51W
Quadro K2000D	2GB	384	1 dual-link DVI-I 1 dual-link DVI-D 1 mini DisplayPort	4*	1	51W
Quadro K600	1GB	192	1 dual-link DVI-I 1 DisplayPort	2	1	41W
Quadro 410	512MB	192	1 dual-link DVI-I 1 DisplayPort	2	1	37W
Quadro 6000	6GB	448	1 dual-link DVI-I 2 DisplayPort 1 Stereo	2	2	204W
Quadro 5000	2.5GB	352	1 dual-link DVI-I 2 DisplayPort, 1 Stereo	2	2	152W
Quadro 4000	2GB	256	1 dual-link DVI-I 2 DisplayPort 1 Stereo	2	1	142W
Quadro 2000	1GB	192	1 dual-link DVI-I 2 DisplayPort	2	1	62W
Quadro 2000D	1GB	192	2 dual-link DVI-I	2	1	62W
Quadro 600	1GB	96	1 dual-link DVI-I 1 DisplayPort	2	1	40W
NVS 510	2048 MB	192	4 mini DisplayPort (with 4 mini DP to DP dongles)	4	1	35W
NVS 315	1024MB	48	DMS59 to dual single-link DVI-I or dual DisplayPort	2	1	19.5W
NVS 310	512 MB	48	2 DisplayPort	2	1	19.5W
NVS 300	512 MB	16	DMS59 to dual single- link DVI-I	2	1	17.5W
NVIDIA Tesla GPU Computing Processors (as part of NVIDIA Maximus Platform)						
Tesla K20	5GB	2496				225W
Tesla C2075	6GB	448				225W

\* Quadro K4000, K2000, and K2000D are equipped with 3 onboard display connectors, 4 Displays require a supported DisplayPort 1.2 Multi-Stream capable hub or displays

## Notes:

- ThinkStation S30 support NVIDIA Maximus technology. Maximus technology combines the visualization and interactive design capability of NVIDIA Quadro graphics and the high performance computing power of NVIDIA Tesla GPU computing processors in a single workstation. For more information on the latest Maximus certifications for ThinkStation and how to build Maximus system, please see [www.nvidia.com/object/maximus.html](http://www.nvidia.com/object/maximus.html)
- CUDA Processor Cores cannot be compared between GPU generations due to several important architectural differences that exist between streaming multiprocessor designs.

## Product Specifications Reference (PSREF)

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## ThinkStation S30 Platform Specifications - IV of IV

Product Specifications Reference (PSREF)

ISV certifications	Please visit <a href="http://www.lenovo.com/support/ISV">www.lenovo.com/support/ISV</a>
Environmental certifications	GREENGUARD® certified RoHS-compliant EPEAT™ Gold rating
Warranty	1 or 3-year limited warranty, parts and labor
ThinkVantage®	Supports ThinkVantage® technologies
Preloaded operating systems	One the following, depending on model: <ul style="list-style-type: none"> <li>• Windows® 7 Professional 64</li> <li>• Windows 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit</li> <li>• Windows 8 Pro 64-bit</li> </ul>
Preloaded applications (only some listed)	<p><i>For Windows 7 models:</i></p> <ul style="list-style-type: none"> <li>• Rescue and Recovery®</li> <li>• Norton® Internet Security (30 days of virus definitions)</li> <li>• Adobe® Reader®</li> <li>• Adobe Flash® Player</li> <li>• Microsoft® Office preloaded; purchase product key to activate</li> <li>• Corel® WinDVD® (DVD±RW model(s))</li> <li>• Ulead® DVD MovieFactory® (DVD±RW model(s))</li> </ul> <p><i>For Windows 8 models:</i></p> <ul style="list-style-type: none"> <li>• Evernote®</li> <li>• Norton Internet Security (30 days of virus definitions)</li> <li>• Norton Studio</li> <li>• Skype™</li> <li>• Microsoft Office 2013 preloaded; purchase product key to activate</li> <li>• Cyberlink Power2Go (DVD±RW model(s))</li> <li>• Cyberlink PowerProducer (DVD±RW model(s))</li> </ul>



# ThinkStation S30 (4352) - TopSeller (June 2013)

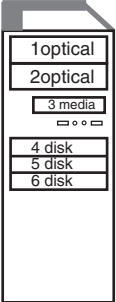
Product Specifications Reference (PSREF)

Type-model <sup>1</sup>	Processor(s)	Memory (MHz/type)	Memory DIMMs	Upgrade ROM for onboard drive controller	Discrete drive controller	Pre-conf RAID	Hard drive(s) <sup>2</sup>	Optical	Media reader	Graphics adapter(s) and GPU computing	1394 adptr	Chassis intrusion switch	Preloaded OS
4352-17G	E5-1607 (4C/3.6GHz/10MB/1066)	1600MHz UDIMM	4GBx1	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	No	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-18G	E5-1620 (4C/3.6GHz/10MB/1600)	1600MHz UDIMM	4GBx1	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	No	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-19G	E5-1620 (4C/3.6GHz/10MB/1600)	1600MHz UDIMM	4GBx2	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	No	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-21G	E5-1603 (4C/3.6GHz/10MB/1066)	1600MHz UDIMM	4GBx1	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	No	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-22G	E5-1620 (4C/3.6GHz/10MB/1600)	1600MHz UDIMM	4GBx2	SAS	No	No	2x146GB 2.5" SAS	DVD±RW	29-in-1	No	No	Switch	Win7 Pro64 (Downgrade from Win8)

<sup>1</sup> Model in *italics* shows that this is a Global Model

<sup>2</sup> The SSD drives in *italics* must be plugged into red or orange SATA connectors

- **3-year limited warranty**
- **With new MT type 4351/4352 and beyond, ThinkStation S30 introduces new updates to improve the functionality and usability:**
  - (These new features are not supported on 0568, 0569, and 0606 MT models)
    - Intel AMT: upgrades to Intel AMT 8 from Intel AMT 7
    - New TPM chip: STMicroelectronics ST33TPM12LPC
    - Two front USB 2.0 ports upgrade to USB3.0
- **For ThinkStation S30 Platform Specifications, please see [ThinkStation S30 Platform Specifications sheet](#)**

Chipset	<b>Intel C602 Chipset</b>	<b>Tower</b>
Processor	One LGA2011 socket, supports one processor from <b>Intel Xeon E5-2600</b> and <b>E5-1600</b> family, integrated 4-channel DDR3 memory controller	 <ul style="list-style-type: none"> <li>• Raven black color; metal case</li> <li>• 6.9"W x 18.1"D x 18.8"H (with handle)</li> <li>• 175mm W x 460mm D x 478mm H</li> <li>• 38.5 lb (17.5kg) max configuration</li> <li>• 31-liter</li> <li>• Removable handle on top front</li> <li>• Toolless side cover removal</li> <li>• Toolless disk and optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Illuminated front icons</li> <li>• Rack shelf support</li> </ul>
Memory	<b>UDIMM or RDIMM, ECC, DDR3</b> , 4-channel capable, eight 240-pin DIMM sockets, 64GB max (UDIMM, 8GBx8)/256GB max (RDIMM, 32GBx8)	<p>Bay 1-2: 5.25", 1.6" high, external, for optical</p> <p>Bay 3: 3.5", 1" high, external, for media reader</p> <p>Bay 4-6: 3.5", 1" high, internal, for hard drive</p>
Additional memory disclaimers	<ul style="list-style-type: none"> <li>• Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs</li> <li>• Mixing of RDIMM and UDIMM is not supported</li> </ul>	<p>Slot 1: full-length, full-height, PCIe 3.0 x16** (near CPU)</p> <p>Slot 2: full-length, full-height, PCIe 3.0 x16 (x4 electrical)</p> <p>Slot 3: full-length, full-height, PCIe 3.0 x16**</p> <p>Slot 4: full-length, full-height, 32-bit PCI 2.3</p> <p>Slot 5: half-length, full-height, PCIe 2.0 x4</p> <p>** Adapters &gt;75W use auxiliary power connector(s) from PSU</p>
Graphics adapters and GPU computing	Two PCI Express 3.0 x16 slots for graphics adapters and GPU computing processors, supports NVIDIA SLI technology, NVIDIA Maximus technology	<b>SECURITY</b>
Onboard drive controllers	<ul style="list-style-type: none"> <li>• Four SATA connectors via integrated Advanced Host Controller Interface (AHCI) in chipset, two SATA 6.0Gb/s (red), two SATA 3.0Gb/s (orange), RAID 0, 1 support;</li> <li>• Three SATA connectors via integrated Storage Controller Unit (SCU) in chipset, SATA 3.0Gb/s, RAID 0, 1, 5 support</li> </ul>	<ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Side cover lock (ships with two identical keys)</li> <li>• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)</li> <li>• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O enable/disable</li> <li>• USB 2.0 ports enable/disable individually</li> <li>• USB 3.0 ports enable/disable concurrently</li> <li>• Chassis intrusion switch on selected model(s)</li> </ul>
Upgrade ROM for onboard drive controllers (opt)	Optional SAS HDD Enablement Module upgrades the 3 SATA connectors on SCU to 3 SATA/SAS connectors, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID 0, 1 support	<b>Intel AMT</b>
Discrete drive controller (opt)	<p>One the following, depending on model:</p> <p>LSI SAS 9240-8i: SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1 support</p> <p>optional upgrade key for RAID 5 support</p> <p>LSI SAS 9260-8i: SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1, 5 support</p>	Intel Active Management Technology 8
Hard drives	<p>3.5" SATA: SATA 6.0Gb/s, 7200 rpm</p> <p>2.5" SATA: SATA 6.0Gb/s, 10000 rpm</p> <p>3.5" SAS/2.5" SAS: SAS 6.0Gb/s, 15000 rpm</p> <p>2.5" SSD: Solid State Drive (SSD), SATA 6.0Gb/s, OPAL-capable on selected models</p>	<b>ISV certifications</b>
Optical	Supports DVD-ROM, DVD±RW, or Blu-ray Burner, SATA interface	Please visit <a href="http://www.lenovo.com/support/ISV">www.lenovo.com/support/ISV</a>
Media reader (opt)	Optional media card reader on selected models	<b>Environmental certifications</b>
Front ports	Two USB 3.0, microphone (3.5mm), headphone (3.5mm)	GREENGUARD® certified
Rear ports	Eight USB 2.0, two USB 3.0 (blue), one serial (9-pin), one ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in)	RoHS-compliant
IEEE 1394 adptr (opt)	None. Optional FireWire PCIe adapter on selected models, 1394a-2000, 400Mbps, two 6-pin ports on rear	EPEAT™ Gold rating
Audio	High Definition (HD) Audio, Realtek® ALC662 codec	Supports ThinkVantage® technologies
Speaker	Internal speaker for business audio	
Onboard Ethernet	One onboard gigabit ethernet, Intel 82579	
Security chip	STMicroelectronics ST33TPM12LPC, TCG 1.2-compliant	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black	
Mouse	Optical Wheel Mouse (USB connector), black	
Power supply	610 watts with 120mm bottom-mounted variable speed fan, universal, <b>Climate Savers® Computing Gold, 80 PLUS® Gold</b> qualified	
Preloaded operating systems (OS)	<p>One the following, depending on model:</p> <ul style="list-style-type: none"> <li>• Windows 7 Professional 64</li> <li>• Windows 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit</li> <li>• Windows 8 Pro 64-bit</li> </ul>	

See footnotes for important warranty information  
Model(s) announced June 18, 2013

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# ThinkStation S30 (4352) - TopSeller (June 2013) - II

Product Specifications Reference (PSREF)

Type-model <sup>1</sup>	Processor(s)	Memory (MHz/type)	Memory DIMMs	Upgrade ROM for onboard drive controller	Discrete drive controller	Pre-conf RAID	Hard drive(s) <sup>2</sup>	Optical	Media reader	Graphics adapter(s) and GPU computing	1394 adptr	Chassis intrusion switch	Preloaded OS
4352-23G	E5-1620 (4C/3.6GHz/10MB/1600)	1600MHz UDIMM	4GBx2	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro K2000 (2GB, 1xDVI-I DL*, 2xDP, 51W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-24G	E5-1620 (4C/3.6GHz/10MB/1600)	1600MHz UDIMM	4GBx2	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro K600 (1GB, 1xDVI-I DL, 1xDP, 41W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-25G	E5-1650 (6C/3.2GHz/12MB/1600)	1600MHz UDIMM	4GBx1	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	No	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-26G	E5-1650 (6C/3.2GHz/12MB/1600)	1600MHz UDIMM	4GBx2	No	No	No	1x2TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro K4000 (3GB, 1xDVI-I DL, 2xDP, 80W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-27G	E5-1660 (6C/3.3GHz/15MB/1600)	1600MHz RDIMM	4GBx3	No	No	No	2x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro K5000 (4GB, 1xDVI-I DL, 1xDVI-D DL, 2xDP, 122W)	No	Switch	Win7 Pro64 (Downgrade from Win8)

<sup>1</sup> Model in *italics* shows that this is a Global Model

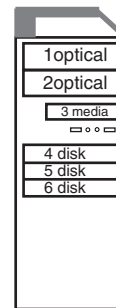
<sup>2</sup> The SSD drives in *italics* must be plugged into red or orange SATA connectors

\* DL = Dual Link, SL = Single Link

- **3-year limited warranty**
- **With new MT type 4351/4352 and beyond, ThinkStation S30 introduces new updates to improve the functionality and usability:**
  - (These new features are not supported on 0568, 0569, and 0606 MT models)
    - Intel AMT: upgrades to Intel AMT 8 from Intel AMT 7
    - New TPM chip: STMicroelectronics ST33TPM12LPC
    - Two front USB 2.0 ports upgrade to USB3.0
- **For ThinkStation S30 Platform Specifications, please see [ThinkStation S30 Platform Specifications sheet](#)**

Chipset	<b>Intel C602 Chipset</b>
Processor	One LGA2011 socket, supports one processor from <b>Intel Xeon E5-2600</b> and <b>E5-1600</b> family, integrated 4-channel DDR3 memory controller
Memory	<b>UDIMM</b> or <b>RDIMM, ECC, DDR3</b> , 4-channel capable, eight 240-pin DIMM sockets, 64GB max (UDIMM, 8GBx8)/256GB max (RDIMM, 32GBx8)
Additional memory disclaimers	<ul style="list-style-type: none"> <li>• Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs</li> <li>• Mixing of RDIMM and UDIMM is not supported</li> </ul>
Graphics adapters and GPU computing	Two PCI Express 3.0 x16 slots for graphics adapters and GPU computing processors, supports NVIDIA SLI technology, NVIDIA Maximus technology
Onboard drive controllers	<ul style="list-style-type: none"> <li>• Four SATA connectors via integrated Advanced Host Controller Interface (AHCI) in chipset, two SATA 6.0Gb/s (red), two SATA 3.0Gb/s (orange), RAID 0, 1 support;</li> <li>• Three SATA connectors via integrated Storage Controller Unit (SCU) in chipset, SATA 3.0Gb/s, RAID 0, 1, 5 support</li> </ul>
Upgrade ROM for onboard drive controllers (opt)	Optional SAS HDD Enablement Module upgrades the 3 SATA connectors on SCU to 3 SATA/SAS connectors, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID 0, 1 support
Discrete drive controller (opt)	<i>One the following, depending on model:</i> LSI SAS 9240-8i: SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1 support optional upgrade key for RAID 5 support LSI SAS 9260-8i: SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1, 5 support
Hard drives	3.5" SATA: SATA 6.0Gb/s, 7200 rpm 2.5" SATA: SATA 6.0Gb/s, 10000 rpm 3.5" SAS/2.5" SAS: SAS 6.0Gb/s, 15000 rpm 2.5" SSD: Solid State Drive (SSD), SATA 6.0Gb/s, OPAL-capable on selected models
Optical	Supports DVD-ROM, DVD±RW, or Blu-ray Burner, SATA interface
Media reader (opt)	Optional media card reader on selected models
Front ports	Two USB 3.0, microphone (3.5mm), headphone (3.5mm)
Rear ports	Eight USB 2.0, two USB 3.0 (blue), one serial (9-pin), one ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in)
IEEE 1394 adptr (opt)	None. Optional FireWire PCIe adapter on selected models, 1394a-2000, 400Mbps, two 6-pin ports on rear
Audio	High Definition (HD) Audio, Realtek® ALC662 codec
Speaker	Internal speaker for business audio
Onboard Ethernet	One onboard gigabit ethernet, Intel 82579
Security chip	STMicroelectronics ST33TPM12LPC, TCG 1.2-compliant
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black
Mouse	Optical Wheel Mouse (USB connector), black
Power supply	610 watts with 120mm bottom-mounted variable speed fan, universal, <b>Climate Savers® Computing Gold, 80 PLUS® Gold</b> qualified
Preloaded operating systems (OS)	<i>One the following, depending on model:</i> <ul style="list-style-type: none"> <li>• Windows 7 Professional 64</li> <li>• Windows 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit</li> <li>• Windows 8 Pro 64-bit</li> </ul>

## Tower



- Raven black color; metal case
- 6.9"W x 18.1"D x 18.8"H (with handle)
- 175mm W x 460mm D x 478mm H
- 38.5 lb (17.5kg) max configuration
- 31-liter
- Removable handle on top front
- Toolless side cover removal
- Toolless disk and optical drive removal
- Toolless adapter retention
- Illuminated front icons
- Rack shelf support

Bay 1-2: 5.25", 1.6" high, external, for optical  
 Bay 3: 3.5", 1" high, external, for media reader  
 Bay 4-6: 3.5", 1" high, internal, for hard drive

Slot 1: full-length, full-height, PCIe 3.0 x16\*\* (near CPU)  
 Slot 2: full-length, full-height, PCIe 3.0 x16 (x4 electrical)  
 Slot 3: full-length, full-height, PCIe 3.0 x16\*\*  
 Slot 4: full-length, full-height, 32-bit PCI 2.3  
 Slot 5: half-length, full-height, PCIe 2.0 x4

\*\* Adapters >75W use auxiliary power connector(s) from PSU

## SECURITY

- Security chip (see information on left)
- Side cover lock (ships with two identical keys)
- Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)
- Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)
- Power-on password
- Administrator password
- Boot sequence control
- Boot without keyboard, mouse, diskette
- Serial port I/O enable/disable
- USB 2.0 ports enable/disable individually
- USB 3.0 ports enable/disable concurrently
- Chassis intrusion switch on selected model(s)

## Intel AMT

Intel Active Management Technology 8

## ISV certifications

Please visit [www.lenovo.com/support/ISV](http://www.lenovo.com/support/ISV)

## Environmental certifications

GREENGUARD® certified  
 RoHS-compliant  
 EPEAT™ Gold rating

Supports ThinkVantage® technologies

# ThinkStation S30 (4352) - TopSeller (June 2013) - III

Product Specifications Reference (PSREF)

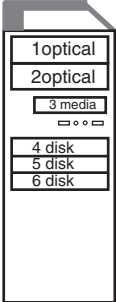
Type-model <sup>1</sup>	Processor(s)	Memory (MHz/type)	Memory DIMMs	Upgrade ROM for onboard drive controller	Discrete drive controller	Pre-conf RAID	Hard drive(s) <sup>2</sup>	Optical	Media reader	Graphics adapter(s) and GPU computing	1394 adptr	Chassis intrusion switch	Preloaded OS
4352-28G	E5-1650 (6C/3.2GHz/12MB/1600)	1600MHz RDIMM	4GBx2	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro K2000D (2GB, 1xDVI-I DL*, 1xDVI-D DL, 1xmini-DP, 51W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-29G	E5-1650 (6C/3.2GHz/12MB/1600)	1600MHz RDIMM	4GBx2	SAS	No	No	1x300GB 3.5" SAS	DVD±RW	29-in-1	1xQuadro K600 (1GB, 1xDVI-I DL, 1xDP, 41W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-31G	E5-1620 (4C/3.6GHz/10MB/1600)	1600MHz UDIMM	4GBx2	No	No	No	2x180GB 2.5" SSD	DVD±RW	29-in-1	No	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-32G	E5-1620 (4C/3.6GHz/10MB/1600)	1600MHz UDIMM	4GBx1	No	No	No	1x240GB 2.5" SSD	DVD±RW	29-in-1	No	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-33G	E5-1620 (4C/3.6GHz/10MB/1600)	1600MHz UDIMM	4GBx1	No	No	No	1x128GB 2.5" SSD	DVD±RW	29-in-1	No	No	Switch	Win7 Pro64 (Downgrade from Win8)

<sup>1</sup> Model in *italics* shows that this is a Global Model

<sup>2</sup> The SSD drives in *italics* must be plugged into red or orange SATA connectors

\* DL = Dual Link, SL = Single Link

- **3-year limited warranty**
- **With new MT type 4351/4352 and beyond, ThinkStation S30 introduces new updates to improve the functionality and usability:**
  - (These new features are not supported on 0568, 0569, and 0606 MT models)
    - Intel AMT: upgrades to Intel AMT 8 from Intel AMT 7
    - New TPM chip: STMicroelectronics ST33TPM12LPC
    - Two front USB 2.0 ports upgrade to USB3.0
- **For ThinkStation S30 Platform Specifications, please see [ThinkStation S30 Platform Specifications](#) sheet**

Chipset	<b>Intel C602 Chipset</b>		<b>Tower</b>	
Processor	One LGA2011 socket, supports one processor from <b>Intel Xeon E5-2600</b> and <b>E5-1600</b> family, integrated 4-channel DDR3 memory controller		 <ul style="list-style-type: none"> <li>• Raven black color; metal case</li> <li>• 6.9"W x 18.1"D x 18.8"H (with handle)</li> <li>• 175mm W x 460mm D x 478mm H</li> <li>• 38.5 lb (17.5kg) max configuration</li> <li>• 31-liter</li> <li>• Removable handle on top front</li> <li>• Toolless side cover removal</li> <li>• Toolless disk and optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Illuminated front icons</li> <li>• Rack shelf support</li> </ul>	
Memory	<b>UDIMM or RDIMM, ECC, DDR3</b> , 4-channel capable, eight 240-pin DIMM sockets, 64GB max (UDIMM, 8GBx8)/256GB max (RDIMM, 32GBx8)		Bay 1-2: 5.25", 1.6" high, external, for optical Bay 3: 3.5", 1" high, external, for media reader Bay 4-6: 3.5", 1" high, internal, for hard drive	
Additional memory disclaimers	<ul style="list-style-type: none"> <li>• Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs</li> <li>• Mixing of RDIMM and UDIMM is not supported</li> </ul>		Slot 1: full-length, full-height, PCIe 3.0 x16** (near CPU) Slot 2: full-length, full-height, PCIe 3.0 x16 (x4 electrical) Slot 3: full-length, full-height, PCIe 3.0 x16** Slot 4: full-length, full-height, 32-bit PCI 2.3 Slot 5: half-length, full-height, PCIe 2.0 x4 ** Adapters >75W use auxiliary power connector(s) from PSU	
Graphics adapters and GPU computing	Two PCI Express 3.0 x16 slots for graphics adapters and GPU computing processors, supports NVIDIA SLI technology, NVIDIA Maximus technology		<b>SECURITY</b>	
Onboard drive controllers	<ul style="list-style-type: none"> <li>• Four SATA connectors via integrated Advanced Host Controller Interface (AHCI) in chipset, two SATA 6.0Gb/s (red), two SATA 3.0Gb/s (orange), RAID 0, 1 support;</li> <li>• Three SATA connectors via integrated Storage Controller Unit (SCU) in chipset, SATA 3.0Gb/s, RAID 0, 1, 5 support</li> </ul>		<ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Side cover lock (ships with two identical keys)</li> <li>• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)</li> <li>• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O enable/disable</li> <li>• USB 2.0 ports enable/disable individually</li> <li>• USB 3.0 ports enable/disable concurrently</li> <li>• Chassis intrusion switch on selected model(s)</li> </ul>	
Upgrade ROM for onboard drive controllers (opt)	Optional SAS HDD Enablement Module upgrades the 3 SATA connectors on SCU to 3 SATA/SAS connectors, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID 0, 1 support		<b>Intel AMT</b>	
Discrete drive controller (opt)	<i>One the following, depending on model:</i> LSI SAS 9240-8i: SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1 support optional upgrade key for RAID 5 support LSI SAS 9260-8i: SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1, 5 support		Intel Active Management Technology 8	
Hard drives	3.5" SATA: SATA 6.0Gb/s, 7200 rpm 2.5" SATA: SATA 6.0Gb/s, 10000 rpm 3.5" SAS/2.5" SAS: SAS 6.0Gb/s, 15000 rpm 2.5" SSD: Solid State Drive (SSD), SATA 6.0Gb/s, OPAL-capable on selected models		<b>ISV certifications</b>	
Optical	Supports DVD-ROM, DVD±RW, or Blu-ray Burner, SATA interface		Please visit <a href="http://www.lenovo.com/support/ISV">www.lenovo.com/support/ISV</a>	
Media reader (opt)	Optional media card reader on selected models		<b>Environmental certifications</b>	
Front ports	Two USB 3.0, microphone (3.5mm), headphone (3.5mm)		GREENGUARD® certified	
Rear ports	Eight USB 2.0, two USB 3.0 (blue), one serial (9-pin), one ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in)		RoHS-compliant	
IEEE 1394 adptr (opt)	None. Optional FireWire PCIe adapter on selected models, 1394a-2000, 400Mbps, two 6-pin ports on rear		EPEAT™ Gold rating	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		Supports ThinkVantage® technologies	
Speaker	Internal speaker for business audio			
Onboard Ethernet	One onboard gigabit ethernet, Intel 82579			
Security chip	STMicroelectronics ST33TPM12LPC, TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black			
Mouse	Optical Wheel Mouse (USB connector), black			
Power supply	610 watts with 120mm bottom-mounted variable speed fan, universal, <b>Climate Savers® Computing Gold, 80 PLUS® Gold</b> qualified			
Preloaded operating systems (OS)	<i>One the following, depending on model:</i> <ul style="list-style-type: none"> <li>• Windows 7 Professional 64</li> <li>• Windows 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit</li> <li>• Windows 8 Pro 64-bit</li> </ul>			

See footnotes for important warranty information  
Model(s) announced June 18, 2013

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(G-FOR3-4) June 2013



# ThinkStation S30 (4352) - TopSeller (June 2013) - IV

Product Specifications Reference (PSREF)

Type-model <sup>1</sup>	Processor(s)	Memory (MHz/type)	Memory DIMMs	Upgrade ROM for onboard drive controller	Discrete drive controller	Pre-conf RAID	Hard drive(s) <sup>2</sup>	Optical	Media reader	Graphics adapter(s) and GPU computing	1394 adptr	Chassis intrusion switch	Preloaded OS
4352-34G	E5-1650 (6C/3.2GHz/12MB/1600)	1600MHz UDIMM	4GBx2	No	No	No	1x3TB 3.5" SATA	DVD±RW	29-in-1	No	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-35G	E5-1620 (4C/3.6GHz/10MB/1600)	1600MHz UDIMM	4GBx2	No	No	No	1x250GB 3.5" SATA	DVD±RW	29-in-1	1xQuadro 410 (512MB, 1xDVI-I DL*, 1xDP, 37W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-36G	E5-1650 (6C/3.2GHz/12MB/1600)	1600MHz UDIMM	4GBx2	No	No	No	1x500GB 3.5" SATA	DVD±RW	29-in-1	1xQuadro 410 (512MB, 1xDVI-I DL, 1xDP, 37W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-37G	E5-1650 (6C/3.2GHz/12MB/1600)	1600MHz UDIMM	4GBx2	No	No	No	1x1TB 2.5" SATA	DVD±RW	29-in-1	1xQuadro K2000 (2GB, 1xDVI-I DL, 2xDP, 51W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-38G	E5-2603 (4C/1.8GHz/10MB/1066)	1600MHz UDIMM	4GBx2	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro K600 (1GB, 1xDVI-I DL, 1xDP, 41W)	No	Switch	Win7 Pro64 (Downgrade from Win8)

<sup>1</sup> Model in *italics* shows that this is a Global Model

<sup>2</sup> The SSD drives in *italics* must be plugged into red or orange SATA connectors

\* DL = Dual Link, SL = Single Link

- **3-year limited warranty**
- **With new MT type 4351/4352 and beyond, ThinkStation S30 introduces new updates to improve the functionality and usability:**
  - (These new features are not supported on 0568, 0569, and 0606 MT models)
    - Intel AMT: upgrades to Intel AMT 8 from Intel AMT 7
    - New TPM chip: STMicroelectronics ST33TPM12LPC
    - Two front USB 2.0 ports upgrade to USB3.0
- **For ThinkStation S30 Platform Specifications, please see [ThinkStation S30 Platform Specifications sheet](#)**

Chipset	Intel C602 Chipset		
Processor	One LGA2011 socket, supports one processor from Intel Xeon E5-2600 and E5-1600 family, integrated 4-channel DDR3 memory controller		
Memory	UDIMM or RDIMM, ECC, DDR3, 4-channel capable, eight 240-pin DIMM sockets, 64GB max (UDIMM, 8GBx8)/256GB max (RDIMM, 32GBx8)		
Additional memory disclaimers	<ul style="list-style-type: none"><li>Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs</li><li>Mixing of RDIMM and UDIMM is not supported</li></ul>		
Graphics adapters and GPU computing	Two PCI Express 3.0 x16 slots for graphics adapters and GPU computing processors, supports NVIDIA SLI technology, NVIDIA Maximus technology		
Onboard drive controllers	<ul style="list-style-type: none"><li>Four SATA connectors via integrated Advanced Host Controller Interface (AHCI) in chipset, two SATA 6.0Gb/s (red), two SATA 3.0Gb/s (orange), RAID 0, 1 support;</li><li>Three SATA connectors via integrated Storage Controller Unit (SCU) in chipset, SATA 3.0Gb/s, RAID 0, 1, 5 support</li></ul>		
Upgrade ROM for onboard drive controllers (opt)	Optional SAS HDD Enablement Module upgrades the 3 SATA connectors on SCU to 3 SATA/SAS connectors, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID 0, 1 support		
Discrete drive controller (opt)	One the following, depending on model: LSI SAS 9240-8i: SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1 support optional upgrade key for RAID 5 support LSI SAS 9260-8i: SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1, 5 support		
Hard drives	3.5" SATA: SATA 6.0Gb/s, 7200 rpm 2.5" SATA: SATA 6.0Gb/s, 10000 rpm 3.5" SAS/2.5" SAS: SAS 6.0Gb/s, 15000 rpm 2.5" SSD: Solid State Drive (SSD), SATA 6.0Gb/s, OPAL-capable on selected models		
Optical	Supports DVD-ROM, DVD±RW, or Blu-ray Burner, SATA interface		
Media reader (opt)	Optional media card reader on selected models		
Front ports	Two USB 3.0, microphone (3.5mm), headphone (3.5mm)		
Rear ports	Eight USB 2.0, two USB 3.0 (blue), one serial (9-pin), one ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in)		
IEEE 1394 adptr (opt)	None. Optional FireWire PCIe adapter on selected models, 1394a-2000, 400Mbps, two 6-pin ports on rear		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	Internal speaker for business audio		
Onboard Ethernet	One onboard gigabit ethernet, Intel 82579		
Security chip	STMicroelectronics ST33TPM12LPC, TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black		
Mouse	Optical Wheel Mouse (USB connector), black		
Power supply	610 watts with 120mm bottom-mounted variable speed fan, universal, Climate Savers® Computing Gold, 80 PLUS® Gold qualified		
Preloaded operating systems (OS)	One the following, depending on model: <ul style="list-style-type: none"><li>Windows 7 Professional 64</li><li>Windows 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit</li><li>Windows 8 Pro 64-bit</li></ul>		

<div>Tower</div> <div><div><div>1 optical</div><div>2 optical</div><div>3 media</div><div>4 disk</div><div>5 disk</div><div>6 disk</div></div></div>	<ul style="list-style-type: none"><li>Raven black color; metal case</li><li>6.9"W x 18.1"D x 18.8"H (with handle)</li><li>175mm W x 460mm D x 478mm H</li><li>38.5 lb (17.5kg) max configuration</li><li>31-liter</li><li>Removable handle on top front</li><li>Toolless side cover removal</li><li>Toolless disk and optical drive removal</li><li>Toolless adapter retention</li><li>Illuminated front icons</li><li>Rack shelf support</li></ul>	
Bay 1-2: 5.25", 1.6" high, external, for optical	Bay 3: 3.5", 1" high, external, for media reader	Bay 4-6: 3.5", 1" high, internal, for hard drive
Slot 1: full-length, full-height, PCIe 3.0 x16** (near CPU)		
Slot 2: full-length, full-height, PCIe 3.0 x16 (x4 electrical)		
Slot 3: full-length, full-height, PCIe 3.0 x16**		
Slot 4: full-length, full-height, 32-bit PCI 2.3		
Slot 5: half-length, full-height, PCIe 2.0 x4		
** Adapters >75W use auxiliary power connector(s) from PSU		

<div>SECURITY</div> <ul style="list-style-type: none"><li>Security chip (see information on left)</li><li>Side cover lock (ships with two identical keys)</li><li>Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)</li><li>Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)</li><li>Power-on password</li><li>Administrator password</li><li>Boot sequence control</li><li>Boot without keyboard, mouse, diskette</li><li>Serial port I/O enable/disable</li><li>USB 2.0 ports enable/disable individually</li><li>USB 3.0 ports enable/disable concurrently</li><li>Chassis intrusion switch on selected model(s)</li></ul>
<div>Intel AMT</div> <div>Intel Active Management Technology 8</div>
<div>ISV certifications</div> <div>Please visit <a href="http://www.lenovo.com/support/ISV">www.lenovo.com/support/ISV</a></div>
<div>Environmental certifications</div> <div>GREENGUARD® certified</div> <div>RoHS-compliant</div> <div>EPEAT™ Gold rating</div>
Supports ThinkVantage® technologies

See footnotes for important warranty information  
Model(s) announced June 18, 2013

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# ThinkStation S30 (4352) - TopSeller (June 2013) - V

Product Specifications Reference (PSREF)

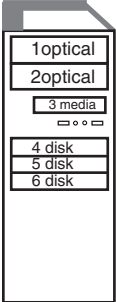
Type-model <sup>1</sup>	Processor(s)	Memory (MHz/type)	Memory DIMMs	Upgrade ROM for onboard drive controller	Discrete drive controller	Pre-conf RAID	Hard drive(s) <sup>2</sup>	Optical	Media reader	Graphics adapter(s) and GPU computing	1394 adptr	Chassis intrusion switch	Preloaded OS
4352-39G	E5-2609 (4C/2.4GHz/10MB/1066)	1600MHz UDIMM	4GBx2	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro K600 (1GB, 1xDVI-I DL*, 1xDP, 41W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-41G	E5-2643 (4C/3.3GHz/10MB/1600)	1600MHz UDIMM	4GBx2	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro K2000 (2GB, 1xDVI-I DL, 2xDP, 51W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-42G	E5-2620 (6C/2GHz/15MB/1333)	1600MHz UDIMM	4GBx2	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro K2000 (2GB, 1xDVI-I DL, 2xDP, 51W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-43G	E5-2630 (6C/2.3GHz/15MB/1333)	1600MHz UDIMM	4GBx2	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro K4000 (3GB, 1xDVI-I DL, 2xDP, 80W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-44G	E5-1650 (6C/3.2GHz/12MB/1600)	1600MHz UDIMM	4GBx2	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro K4000 (3GB, 1xDVI-I DL, 2xDP, 80W)	No	Switch	Win7 Pro64 (Downgrade from Win8)

<sup>1</sup> Model in *italics* shows that this is a Global Model

<sup>2</sup> The SSD drives in *italics* must be plugged into red or orange SATA connectors

\* DL = Dual Link, SL = Single Link

- **3-year limited warranty**
- **With new MT type 4351/4352 and beyond, ThinkStation S30 introduces new updates to improve the functionality and usability:**
  - (These new features are not supported on 0568, 0569, and 0606 MT models)
    - Intel AMT: upgrades to Intel AMT 8 from Intel AMT 7
    - New TPM chip: STMicroelectronics ST33TPM12LPC
    - Two front USB 2.0 ports upgrade to USB3.0
- **For ThinkStation S30 Platform Specifications, please see [ThinkStation S30 Platform Specifications](#) sheet**

Chipset	<b>Intel C602 Chipset</b>	<b>Tower</b>
Processor	One LGA2011 socket, supports one processor from <b>Intel Xeon E5-2600</b> and <b>E5-1600</b> family, integrated 4-channel DDR3 memory controller	 <ul style="list-style-type: none"> <li>• Raven black color; metal case</li> <li>• 6.9"W x 18.1"D x 18.8"H (with handle)</li> <li>• 175mm W x 460mm D x 478mm H</li> <li>• 38.5 lb (17.5kg) max configuration</li> <li>• 31-liter</li> <li>• Removable handle on top front</li> <li>• Toolless side cover removal</li> <li>• Toolless disk and optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Illuminated front icons</li> <li>• Rack shelf support</li> </ul>
Memory	<b>UDIMM or RDIMM, ECC, DDR3</b> , 4-channel capable, eight 240-pin DIMM sockets, 64GB max (UDIMM, 8GBx8)/256GB max (RDIMM, 32GBx8)	<p>Bay 1-2: 5.25", 1.6" high, external, for optical</p> <p>Bay 3: 3.5", 1" high, external, for media reader</p> <p>Bay 4-6: 3.5", 1" high, internal, for hard drive</p>
Additional memory disclaimers	<ul style="list-style-type: none"> <li>• Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs</li> <li>• Mixing of RDIMM and UDIMM is not supported</li> </ul>	<p>Slot 1: full-length, full-height, PCIe 3.0 x16** (near CPU)</p> <p>Slot 2: full-length, full-height, PCIe 3.0 x16 (x4 electrical)</p> <p>Slot 3: full-length, full-height, PCIe 3.0 x16**</p> <p>Slot 4: full-length, full-height, 32-bit PCI 2.3</p> <p>Slot 5: half-length, full-height, PCIe 2.0 x4</p> <p>** Adapters &gt;75W use auxiliary power connector(s) from PSU</p>
Graphics adapters and GPU computing	Two PCI Express 3.0 x16 slots for graphics adapters and GPU computing processors, supports NVIDIA SLI technology, NVIDIA Maximus technology	<b>SECURITY</b>
Onboard drive controllers	<ul style="list-style-type: none"> <li>• Four SATA connectors via integrated Advanced Host Controller Interface (AHCI) in chipset, two SATA 6.0Gb/s (red), two SATA 3.0Gb/s (orange), RAID 0, 1 support;</li> <li>• Three SATA connectors via integrated Storage Controller Unit (SCU) in chipset, SATA 3.0Gb/s, RAID 0, 1, 5 support</li> </ul>	<ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Side cover lock (ships with two identical keys)</li> <li>• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)</li> <li>• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O enable/disable</li> <li>• USB 2.0 ports enable/disable individually</li> <li>• USB 3.0 ports enable/disable concurrently</li> <li>• Chassis intrusion switch on selected model(s)</li> </ul>
Upgrade ROM for onboard drive controllers (opt)	Optional SAS HDD Enablement Module upgrades the 3 SATA connectors on SCU to 3 SATA/SAS connectors, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID 0, 1 support	<b>Intel AMT</b>
Discrete drive controller (opt)	<p>One the following, depending on model:</p> <p>LSI SAS 9240-8i: SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1 support</p> <p>optional upgrade key for RAID 5 support</p> <p>LSI SAS 9260-8i: SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1, 5 support</p>	Intel Active Management Technology 8
Hard drives	<p>3.5" SATA: SATA 6.0Gb/s, 7200 rpm</p> <p>2.5" SATA: SATA 6.0Gb/s, 10000 rpm</p> <p>3.5" SAS/2.5" SAS: SAS 6.0Gb/s, 15000 rpm</p> <p>2.5" SSD: Solid State Drive (SSD), SATA 6.0Gb/s, OPAL-capable on selected models</p>	<b>ISV certifications</b>
Optical	Supports DVD-ROM, DVD±RW, or Blu-ray Burner, SATA interface	Please visit <a href="http://www.lenovo.com/support/ISV">www.lenovo.com/support/ISV</a>
Media reader (opt)	Optional media card reader on selected models	<b>Environmental certifications</b>
Front ports	Two USB 3.0, microphone (3.5mm), headphone (3.5mm)	GREENGUARD® certified
Rear ports	Eight USB 2.0, two USB 3.0 (blue), one serial (9-pin), one ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in)	RoHS-compliant
IEEE 1394 adptr (opt)	None. Optional FireWire PCIe adapter on selected models, 1394a-2000, 400Mbps, two 6-pin ports on rear	EPEAT™ Gold rating
Audio	High Definition (HD) Audio, Realtek® ALC662 codec	Supports ThinkVantage® technologies
Speaker	Internal speaker for business audio	
Onboard Ethernet	One onboard gigabit ethernet, Intel 82579	
Security chip	STMicroelectronics ST33TPM12LPC, TCG 1.2-compliant	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black	
Mouse	Optical Wheel Mouse (USB connector), black	
Power supply	610 watts with 120mm bottom-mounted variable speed fan, universal, <b>Climate Savers® Computing Gold, 80 PLUS® Gold</b> qualified	
Preloaded operating systems (OS)	<p>One the following, depending on model:</p> <ul style="list-style-type: none"> <li>• Windows 7 Professional 64</li> <li>• Windows 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit</li> <li>• Windows 8 Pro 64-bit</li> </ul>	

See footnotes for important warranty information  
Model(s) announced June 18, 2013

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(G-FOR5-4) June 2013

# ThinkStation S30 (4352) - TopSeller (June 2013) - V1

Product Specifications Reference (PSREF)

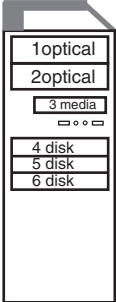
Type-model <sup>1</sup>	Processor(s)	Memory (MHz/type)	Memory DIMMs	Upgrade ROM for onboard drive controller	Discrete drive controller	Pre-conf RAID	Hard drive(s) <sup>2</sup>	Optical	Media reader	Graphics adapter(s) and GPU computing	1394 adptr	Chassis intrusion switch	Preloaded OS
4352-45G	E5-1650 (6C/3.2GHz/12MB/1600)	1600MHz UDIMM	4GBx2	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro K2000 (2GB, 1xDVI-I DL*, 2xDP, 51W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-46G	E5-1620 (4C/3.6GHz/10MB/1600)	1600MHz UDIMM	4GBx2	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro 410 (512MB, 1xDVI-I DL, 1xDP, 37W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-47G	E5-1620 (4C/3.6GHz/10MB/1600)	1600MHz UDIMM	4GBx2	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro K2000D (2GB, 1xDVI-I DL, 1xDVI-D DL, 1xmini-DP, 51W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-48G	E5-1660 (6C/3.3GHz/15MB/1600)	1600MHz UDIMM	4GBx2	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro K5000 (4GB, 1xDVI-I DL, 1xDVI-D DL, 2xDP, 122W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-49G	E5-1620 (4C/3.6GHz/10MB/1600)	1600MHz UDIMM	4GBx2	No	No	No	1TB 3.5" SATA+ 128GB 2.5" SSD	DVD±RW	29-in-1	No	No	Switch	Win7 Pro64 (Downgrade from Win8)

<sup>1</sup> Model in *italics* shows that this is a Global Model

<sup>2</sup> The SSD drives in *italics* must be plugged into red or orange SATA connectors

\* DL = Dual Link, SL = Single Link

- **3-year limited warranty**
- **With new MT type 4351/4352 and beyond, ThinkStation S30 introduces new updates to improve the functionality and usability:**
  - (These new features are not supported on 0568, 0569, and 0606 MT models)
    - Intel AMT: upgrades to Intel AMT 8 from Intel AMT 7
    - New TPM chip: STMicroelectronics ST33TPM12LPC
    - Two front USB 2.0 ports upgrade to USB3.0
- **For ThinkStation S30 Platform Specifications, please see [ThinkStation S30 Platform Specifications sheet](#)**

Chipset	<b>Intel C602 Chipset</b>		<b>Tower</b>	
Processor	One LGA2011 socket, supports one processor from <b>Intel Xeon E5-2600</b> and <b>E5-1600</b> family, integrated 4-channel DDR3 memory controller		 <ul style="list-style-type: none"> <li>• Raven black color; metal case</li> <li>• 6.9"W x 18.1"D x 18.8"H (with handle)</li> <li>• 175mm W x 460mm D x 478mm H</li> <li>• 38.5 lb (17.5kg) max configuration</li> <li>• 31-liter</li> <li>• Removable handle on top front</li> <li>• Toolless side cover removal</li> <li>• Toolless disk and optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Illuminated front icons</li> <li>• Rack shelf support</li> </ul>	
Memory	<b>UDIMM or RDIMM, ECC, DDR3</b> , 4-channel capable, eight 240-pin DIMM sockets, 64GB max (UDIMM, 8GBx8)/256GB max (RDIMM, 32GBx8)		Bay 1-2: 5.25", 1.6" high, external, for optical Bay 3: 3.5", 1" high, external, for media reader Bay 4-6: 3.5", 1" high, internal, for hard drive	
Additional memory disclaimers	<ul style="list-style-type: none"> <li>• Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs</li> <li>• Mixing of RDIMM and UDIMM is not supported</li> </ul>		Slot 1: full-length, full-height, PCIe 3.0 x16** (near CPU) Slot 2: full-length, full-height, PCIe 3.0 x16 (x4 electrical) Slot 3: full-length, full-height, PCIe 3.0 x16** Slot 4: full-length, full-height, 32-bit PCI 2.3 Slot 5: half-length, full-height, PCIe 2.0 x4 ** Adapters >75W use auxiliary power connector(s) from PSU	
Graphics adapters and GPU computing	Two PCI Express 3.0 x16 slots for graphics adapters and GPU computing processors, supports NVIDIA SLI technology, NVIDIA Maximus technology		<b>SECURITY</b>	
Onboard drive controllers	<ul style="list-style-type: none"> <li>• Four SATA connectors via integrated Advanced Host Controller Interface (AHCI) in chipset, two SATA 6.0Gb/s (red), two SATA 3.0Gb/s (orange), RAID 0, 1 support;</li> <li>• Three SATA connectors via integrated Storage Controller Unit (SCU) in chipset, SATA 3.0Gb/s, RAID 0, 1, 5 support</li> </ul>		<ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Side cover lock (ships with two identical keys)</li> <li>• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)</li> <li>• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O enable/disable</li> <li>• USB 2.0 ports enable/disable individually</li> <li>• USB 3.0 ports enable/disable concurrently</li> <li>• Chassis intrusion switch on selected model(s)</li> </ul>	
Upgrade ROM for onboard drive controllers (opt)	Optional SAS HDD Enablement Module upgrades the 3 SATA connectors on SCU to 3 SATA/SAS connectors, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID 0, 1 support		<b>Intel AMT</b>	
Discrete drive controller (opt)	<i>One the following, depending on model:</i> LSI SAS 9240-8i: SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1 support optional upgrade key for RAID 5 support LSI SAS 9260-8i: SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1, 5 support		Intel Active Management Technology 8	
Hard drives	3.5" SATA: SATA 6.0Gb/s, 7200 rpm 2.5" SATA: SATA 6.0Gb/s, 10000 rpm 3.5" SAS/2.5" SAS: SAS 6.0Gb/s, 15000 rpm 2.5" SSD: Solid State Drive (SSD), SATA 6.0Gb/s, OPAL-capable on selected models		<b>ISV certifications</b>	
Optical	Supports DVD-ROM, DVD±RW, or Blu-ray Burner, SATA interface		Please visit <a href="http://www.lenovo.com/support/ISV">www.lenovo.com/support/ISV</a>	
Media reader (opt)	Optional media card reader on selected models		<b>Environmental certifications</b>	
Front ports	Two USB 3.0, microphone (3.5mm), headphone (3.5mm)		GREENGUARD® certified	
Rear ports	Eight USB 2.0, two USB 3.0 (blue), one serial (9-pin), one ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in)		RoHS-compliant	
IEEE 1394 adptr (opt)	None. Optional FireWire PCIe adapter on selected models, 1394a-2000, 400Mbps, two 6-pin ports on rear		EPEAT™ Gold rating	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		Supports ThinkVantage® technologies	
Speaker	Internal speaker for business audio			
Onboard Ethernet	One onboard gigabit ethernet, Intel 82579			
Security chip	STMicroelectronics ST33TPM12LPC, TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black			
Mouse	Optical Wheel Mouse (USB connector), black			
Power supply	610 watts with 120mm bottom-mounted variable speed fan, universal, <b>Climate Savers® Computing Gold, 80 PLUS® Gold</b> qualified			
Preloaded operating systems (OS)	<i>One the following, depending on model:</i> <ul style="list-style-type: none"> <li>• Windows 7 Professional 64</li> <li>• Windows 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit</li> <li>• Windows 8 Pro 64-bit</li> </ul>			

See footnotes for important warranty information  
Model(s) announced June 18, 2013

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# ThinkStation S30 (4352) - TopSeller (June 2013) - VII

Product Specifications Reference (PSREF)

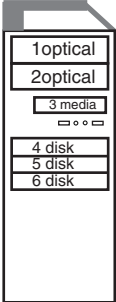
Type-model <sup>1</sup>	Processor(s)	Memory (MHz/type)	Memory DIMMs	Upgrade ROM for onboard drive controller	Discrete drive controller	Pre-conf RAID	Hard drive(s) <sup>2</sup>	Optical	Media reader	Graphics adapter(s) and GPU computing	1394 adptr	Chassis intrusion switch	Preloaded OS
4352-51G	E5-1620 (4C/3.6GHz/10MB/1600)	1600MHz UDIMM	4GBx2	No	No	No	1TB 3.5" SATA+ 128GB 2.5" SSD	DVD±RW	29-in-1	1xQuadro K2000 (2GB, 1xDVI-I DL*, 2xDP, 51W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-82G	E5-1650 (6C/3.2GHz/12MB/1600)	1600MHz UDIMM	4GBx3	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro 2000 (1GB, 1xDVI-I DL, 2xDP, 62W)	No	Switch	Win7 Pro64
4352-83G	E5-1650 (6C/3.2GHz/12MB/1600)	1600MHz UDIMM	4GBx3	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro K2000 (2GB, 1xDVI-I DL, 2xDP, 51W)	No	Switch	Win7 Pro64
4352-84G	E5-1650 (6C/3.2GHz/12MB/1600)	1600MHz UDIMM	4GBx3	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro K2000 (2GB, 1xDVI-I DL, 2xDP, 51W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-85G	E5-1650 (6C/3.2GHz/12MB/1600)	1600MHz UDIMM	4GBx5	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro K2000 (2GB, 1xDVI-I DL, 2xDP, 51W)	No	Switch	Win7 Pro64 (Downgrade from Win8)

<sup>1</sup> Model in *italics* shows that this is a Global Model

<sup>2</sup> The SSD drives in *italics* must be plugged into red or orange SATA connectors

\* DL = Dual Link, SL = Single Link

- **3-year limited warranty**
- **With new MT type 4351/4352 and beyond, ThinkStation S30 introduces new updates to improve the functionality and usability:**
  - (These new features are not supported on 0568, 0569, and 0606 MT models)
    - Intel AMT: upgrades to Intel AMT 8 from Intel AMT 7
    - New TPM chip: STMicroelectronics ST33TPM12LPC
    - Two front USB 2.0 ports upgrade to USB3.0
- **For ThinkStation S30 Platform Specifications, please see [ThinkStation S30 Platform Specifications](#) sheet**

Chipset	<b>Intel C602 Chipset</b>		<b>Tower</b>	
Processor	One LGA2011 socket, supports one processor from <b>Intel Xeon E5-2600</b> and <b>E5-1600</b> family, integrated 4-channel DDR3 memory controller		 <ul style="list-style-type: none"> <li>• Raven black color; metal case</li> <li>• 6.9"W x 18.1"D x 18.8"H (with handle)</li> <li>• 175mm W x 460mm D x 478mm H</li> <li>• 38.5 lb (17.5kg) max configuration</li> <li>• 31-liter</li> <li>• Removable handle on top front</li> <li>• Toolless side cover removal</li> <li>• Toolless disk and optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Illuminated front icons</li> <li>• Rack shelf support</li> </ul>	
Memory	<b>UDIMM or RDIMM, ECC, DDR3</b> , 4-channel capable, eight 240-pin DIMM sockets, 64GB max (UDIMM, 8GBx8)/256GB max (RDIMM, 32GBx8)		Bay 1-2: 5.25", 1.6" high, external, for optical Bay 3: 3.5", 1" high, external, for media reader Bay 4-6: 3.5", 1" high, internal, for hard drive	
Additional memory disclaimers	<ul style="list-style-type: none"> <li>• Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs</li> <li>• Mixing of RDIMM and UDIMM is not supported</li> </ul>		Slot 1: full-length, full-height, PCIe 3.0 x16** (near CPU) Slot 2: full-length, full-height, PCIe 3.0 x16 (x4 electrical) Slot 3: full-length, full-height, PCIe 3.0 x16** Slot 4: full-length, full-height, 32-bit PCI 2.3 Slot 5: half-length, full-height, PCIe 2.0 x4 ** Adapters >75W use auxiliary power connector(s) from PSU	
Graphics adapters and GPU computing	Two PCI Express 3.0 x16 slots for graphics adapters and GPU computing processors, supports NVIDIA SLI technology, NVIDIA Maximus technology		<b>SECURITY</b>	
Onboard drive controllers	<ul style="list-style-type: none"> <li>• Four SATA connectors via integrated Advanced Host Controller Interface (AHCI) in chipset, two SATA 6.0Gb/s (red), two SATA 3.0Gb/s (orange), RAID 0, 1 support;</li> <li>• Three SATA connectors via integrated Storage Controller Unit (SCU) in chipset, SATA 3.0Gb/s, RAID 0, 1, 5 support</li> </ul>		<ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Side cover lock (ships with two identical keys)</li> <li>• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)</li> <li>• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O enable/disable</li> <li>• USB 2.0 ports enable/disable individually</li> <li>• USB 3.0 ports enable/disable concurrently</li> <li>• Chassis intrusion switch on selected model(s)</li> </ul>	
Upgrade ROM for onboard drive controllers (opt)	Optional SAS HDD Enablement Module upgrades the 3 SATA connectors on SCU to 3 SATA/SAS connectors, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID 0, 1 support		<b>Intel AMT</b>	
Discrete drive controller (opt)	<i>One the following, depending on model:</i> LSI SAS 9240-8i: SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1 support optional upgrade key for RAID 5 support LSI SAS 9260-8i: SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1, 5 support		Intel Active Management Technology 8	
Hard drives	3.5" SATA: SATA 6.0Gb/s, 7200 rpm 2.5" SATA: SATA 6.0Gb/s, 10000 rpm 3.5" SAS/2.5" SAS: SAS 6.0Gb/s, 15000 rpm 2.5" SSD: Solid State Drive (SSD), SATA 6.0Gb/s, OPAL-capable on selected models		<b>ISV certifications</b>	
Optical	Supports DVD-ROM, DVD±RW, or Blu-ray Burner, SATA interface		Please visit <a href="http://www.lenovo.com/support/ISV">www.lenovo.com/support/ISV</a>	
Media reader (opt)	Optional media card reader on selected models		<b>Environmental certifications</b>	
Front ports	Two USB 3.0, microphone (3.5mm), headphone (3.5mm)		GREENGUARD® certified	
Rear ports	Eight USB 2.0, two USB 3.0 (blue), one serial (9-pin), one ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in)		RoHS-compliant	
IEEE 1394 adptr (opt)	None. Optional FireWire PCIe adapter on selected models, 1394a-2000, 400Mbps, two 6-pin ports on rear		EPEAT™ Gold rating	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		Supports ThinkVantage® technologies	
Speaker	Internal speaker for business audio			
Onboard Ethernet	One onboard gigabit ethernet, Intel 82579			
Security chip	STMicroelectronics ST33TPM12LPC, TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black			
Mouse	Optical Wheel Mouse (USB connector), black			
Power supply	610 watts with 120mm bottom-mounted variable speed fan, universal, <b>Climate Savers® Computing Gold, 80 PLUS® Gold</b> qualified			
Preloaded operating systems (OS)	<i>One the following, depending on model:</i> <ul style="list-style-type: none"> <li>• Windows 7 Professional 64</li> <li>• Windows 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit</li> <li>• Windows 8 Pro 64-bit</li> </ul>			

See footnotes for important warranty information  
Model(s) announced June 18, 2013

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# ThinkStation S30 (4352) - TopSeller (June 2013) - VIII

Product Specifications Reference (PSREF)

Type-model <sup>1</sup>	Processor(s)	Memory (MHz/type)	Memory DIMMs	Upgrade ROM for onboard drive controller	Discrete drive controller	Pre-conf RAID	Hard drive(s) <sup>2</sup>	Optical	Media reader	Graphics adapter(s) and GPU computing	1394 adptr	Chassis intrusion switch	Preloaded OS
4352-86G	E5-1650 (6C/3.2GHz/12MB/1600)	1600MHz UDIMM	4GBx5	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro K2000 (2GB, 1xDVI-I DL*, 2xDP, 51W)	No	Switch	Win7 Pro64
4352-87G	E5-1650 (6C/3.2GHz/12MB/1600)	1600MHz UDIMM	4GBx5	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro 2000 (1GB, 1xDVI-I DL, 2xDP, 62W)	No	Switch	Win7 Pro64

<sup>1</sup> Model in *italics* shows that this is a Global Model

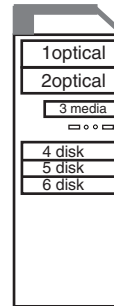
<sup>2</sup> The SSD drives in *italics* must be plugged into red or orange SATA connectors

\* DL = Dual Link, SL = Single Link

- **3-year limited warranty**
- **With new MT type 4351/4352 and beyond, ThinkStation S30 introduces new updates to improve the functionality and usability:**  
(These new features are not supported on 0568, 0569, and 0606 MT models)
  - Intel AMT: upgrades to Intel AMT 8 from Intel AMT 7
  - New TPM chip: STMicroelectronics ST33TPM12LPC
  - Two front USB 2.0 ports upgrade to USB3.0
- For ThinkStation S30 Platform Specifications, please see [ThinkStation S30 Platform Specifications sheet](#)

Chipset	Intel C602 Chipset
Processor	One LGA2011 socket, supports one processor from Intel Xeon E5-2600 and E5-1600 family, integrated 4-channel DDR3 memory controller
Memory	UDIMM or RDIMM, ECC, DDR3, 4-channel capable, eight 240-pin DIMM sockets, 64GB max (UDIMM, 8GBx8)/256GB max (RDIMM, 32GBx8)
Additional memory disclaimers	<ul style="list-style-type: none"> <li>• Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs</li> <li>• Mixing of RDIMM and UDIMM is not supported</li> </ul>
Graphics adapters and GPU computing	Two PCI Express 3.0 x16 slots for graphics adapters and GPU computing processors, supports NVIDIA SLI technology, NVIDIA Maximus technology
Onboard drive controllers	<ul style="list-style-type: none"> <li>• Four SATA connectors via integrated Advanced Host Controller Interface (AHCI) in chipset, two SATA 6.0Gb/s (red), two SATA 3.0Gb/s (orange), RAID 0, 1 support;</li> <li>• Three SATA connectors via integrated Storage Controller Unit (SCU) in chipset, SATA 3.0Gb/s, RAID 0, 1, 5 support</li> </ul>
Upgrade ROM for onboard drive controllers (opt)	Optional SAS HDD Enablement Module upgrades the 3 SATA connectors on SCU to 3 SATA/SAS connectors, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID 0, 1 support
Discrete drive controller (opt)	<i>One the following, depending on model:</i> LSI SAS 9240-8i: SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1 support optional upgrade key for RAID 5 support LSI SAS 9260-8i: SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1, 5 support
Hard drives	3.5" SATA: SATA 6.0Gb/s, 7200 rpm 2.5" SATA: SATA 6.0Gb/s, 10000 rpm 3.5" SAS/2.5" SAS: SAS 6.0Gb/s, 15000 rpm 2.5" SSD: Solid State Drive (SSD), SATA 6.0Gb/s, OPAL-capable on selected models
Optical	Supports DVD-ROM, DVD±RW, or Blu-ray Burner, SATA interface
Media reader (opt)	Optional media card reader on selected models
Front ports	Two USB 3.0, microphone (3.5mm), headphone (3.5mm)
Rear ports	Eight USB 2.0, two USB 3.0 (blue), one serial (9-pin), one ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in)
IEEE 1394 adptr (opt)	None. Optional FireWire PCIe adapter on selected models, 1394a-2000, 400Mbps, two 6-pin ports on rear
Audio	High Definition (HD) Audio, Realtek® ALC662 codec
Speaker	Internal speaker for business audio
Onboard Ethernet	One onboard gigabit ethernet, Intel 82579
Security chip	STMicroelectronics ST33TPM12LPC, TCG 1.2-compliant
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black
Mouse	Optical Wheel Mouse (USB connector), black
Power supply	610 watts with 120mm bottom-mounted variable speed fan, universal, Climate Savers® Computing Gold, 80 PLUS® Gold qualified
Preloaded operating systems (OS)	<i>One the following, depending on model:</i> <ul style="list-style-type: none"> <li>• Windows 7 Professional 64</li> <li>• Windows 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit</li> <li>• Windows 8 Pro 64-bit</li> </ul>

## Tower



- Raven black color; metal case
- 6.9"W x 18.1"D x 18.8"H (with handle)
- 175mm W x 460mm D x 478mm H
- 38.5 lb (17.5kg) max configuration
- 31-liter
- Removable handle on top front
- Toolless side cover removal
- Toolless disk and optical drive removal
- Toolless adapter retention
- Illuminated front icons
- Rack shelf support

Bay 1-2: 5.25", 1.6" high, external, for optical  
 Bay 3: 3.5", 1" high, external, for media reader  
 Bay 4-6: 3.5", 1" high, internal, for hard drive

Slot 1: full-length, full-height, PCIe 3.0 x16\*\* (near CPU)  
 Slot 2: full-length, full-height, PCIe 3.0 x16 (x4 electrical)  
 Slot 3: full-length, full-height, PCIe 3.0 x16\*\*  
 Slot 4: full-length, full-height, 32-bit PCI 2.3  
 Slot 5: half-length, full-height, PCIe 2.0 x4

\*\* Adapters >75W use auxiliary power connector(s) from PSU

## SECURITY

- Security chip (see information on left)
- Side cover lock (ships with two identical keys)
- Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)
- Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)
- Power-on password
- Administrator password
- Boot sequence control
- Boot without keyboard, mouse, diskette
- Serial port I/O enable/disable
- USB 2.0 ports enable/disable individually
- USB 3.0 ports enable/disable concurrently
- Chassis intrusion switch on selected model(s)

## Intel AMT

Intel Active Management Technology 8

## ISV certifications

Please visit [www.lenovo.com/support/ISV](http://www.lenovo.com/support/ISV)

## Environmental certifications

GREENGUARD® certified  
 RoHS-compliant  
 EPEAT™ Gold rating

Supports ThinkVantage® technologies

# ThinkStation S30 (4352) - TopSeller (September 2013)

Product Specifications Reference (PSREF)

Type-model <sup>1</sup>	Processor(s) - Xeon E5 Family	Memory (MHz/type)	Memory DIMMs	Upgrade ROM for onboard drive controller	Pre-conf RAID	Hard drive(s)**	Optical	29-in-1 Media reader	Graphics adapter(s) and GPU computing***	1394 adptr	Chassis intrusion switch	Preloaded OS
4352-A1G	E5-1607 v2 (4C/3GHz/10MB/1600)	1600MHz UDIMM	4GBx1	No	No	1x1TB 3.5" SATA	DVD±RW	Media	No	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-A3G	E5-1620 v2 (4C/3.7GHz/10MB/1866)	1600MHz UDIMM	4GBx1	No	No	1x1TB 3.5" SATA	DVD±RW	Media	No	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-A5G	E5-1603 (4C/2.8GHz/10MB/1066)	1600MHz UDIMM	4GBx1	No	No	1x500GB 3.5" SATA	DVD±RW	Media	No	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-A6G	E5-1620 v2 (4C/3.7GHz/10MB/1866)	1600MHz UDIMM	4GBx1	No	No	1x1TB 3.5" SATA	DVD±RW	Media	1xQuadro K2000 (2GB, 1xDVI-I DL, 2xDP, 51W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-A7G	E5-1620 v2 (4C/3.7GHz/10MB/1866)	1600MHz UDIMM	4GBx1	No	No	1x1TB 3.5" SATA	DVD±RW	Media	1xQuadro K600 (1GB, 1xDVI-I DL, 1xDP, 41W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-A8G	E5-1650 v2 (6C/3.5GHz/12MB/1866)	1600MHz UDIMM	4GBx1	No	No	1x1TB 3.5" SATA	DVD±RW	Media	No	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-A9G	E5-1650 v2 (6C/3.5GHz/12MB/1866)	1600MHz UDIMM	4GBx1	No	No	1x256GB 2.5" SSD - OPAL	DVD±RW	Media	1xQuadro K2000 (2GB, 1xDVI-I DL, 2xDP, 51W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-B1G	E5-1620 v2 (4C/3.7GHz/10MB/1866)	1600MHz UDIMM	4GBx1	No	No	1x240GB 2.5" SSD	DVD±RW	Media	No	No	Switch	Win7 Pro64 (Downgrade from Win8)

\* Model in *italics* shows that this is a Global Model \*\* The SSD drives in *italics* must be plugged into red or orange SATA connectors \*\*\* DL = Dual Link, SL = Single Link

- 3-year limited warranty
- For ThinkStation S30 Platform Specifications, please see [ThinkStation S30 Platform Specifications sheet](#)

Chipset	Intel C602 Chipset		<div><div>Tower</div><div><div><div>1 optical</div><div>2 optical</div><div>3 media</div><div>4 disk</div><div>5 disk</div><div>6 disk</div></div></div><div><div>Bay 1-2: 5.25", 1.6" high, external, for optical</div><div>Bay 3: 3.5", 1" high, external, for media reader</div><div>Bay 4-6: 3.5", 1" high, internal, for hard drive</div></div><div><div>Slot 1: full-length, full-height, PCIe 3.0 x16** (near CPU)</div><div>Slot 2: full-length, full-height, PCIe 3.0 x16 (x4 electrical)</div><div>Slot 3: full-length, full-height, PCIe 3.0 x16**</div><div>Slot 4: full-length, full-height, 32-bit PCI 2.3</div><div>Slot 5: half-length, full-height, PCIe 2.0 x4</div></div><div>** Adapters &gt;75W use auxiliary power connector(s) from PSU</div></div>
Intel AMT	Intel Active Management Technology 8 supported		
Processor	One LGA2011 socket, integrated 4-channel DDR3 memory controller		
Memory	UDIMM or RDIMM, ECC, DDR3, 4-channel capable, eight 240-pin DIMM sockets, 64GB max (UDIMM, 8GBx8)/256GB max (RDIMM, 32GBx8)		
Additional memory disclaimers	<ul style="list-style-type: none"><li>Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs</li><li>Mixing of RDIMM and UDIMM is not supported</li></ul>		
Graphics adapters and GPU computing	Two PCI Express 3.0 x16 slots for graphics adapters and GPU computing processors, supports NVIDIA SLI technology, NVIDIA Maximus technology		
Onboard drive controllers	<ul style="list-style-type: none"><li>Four SATA connectors via integrated Advanced Host Controller Interface (AHCI) in chipset, two SATA 6.0Gb/s (red), two SATA 3.0Gb/s (orange), RAID 0, 1 support;</li><li>Three SATA connectors via integrated Storage Controller Unit (SCU) in chipset, SATA 3.0Gb/s, RAID 0, 1, 5 support</li></ul>		
Upgrade ROM for onboard drive controllers (opt)	Optional SAS HDD Enablement Module upgrades the 3 SATA connectors on SCU to 3 SATA/SAS connectors, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID 0, 1 support		
Discrete drive controller (opt)	None		
Hard drives	<div>3.5" SATA: SATA 6.0Gb/s, 7200 rpm</div> <div>3.5" Hybrid: SATA 6.0Gb/s, 7200 rpm, integrated 8GB NAND flash</div> <div>2.5" SATA: SATA 6.0Gb/s, 10000 rpm</div> <div>3.5" SAS/2.5" SAS: SAS 6.0Gb/s, 15000 rpm</div> <div>2.5" SSD: Solid State Drive (SSD), SATA 6.0Gb/s</div> <div>OPAL-capable on some models</div>		
Optical	Supports DVD-ROM, DVD±RW, or Blu-ray Burner, SATA interface		
Media reader (opt)	Optional media card reader on selected models		
Front ports	Two USB 3.0, microphone (3.5mm), headphone (3.5mm)		
Rear ports	Eight USB 2.0, two USB 3.0 (blue), one serial (9-pin), one ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in)		
IEEE 1394 adptr (opt)	None. Optional FireWire PCIe adapter on selected models, 1394a-2000, 400Mbps, two 6-pin ports on rear		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	Internal speaker for business audio		
Onboard Ethernet	One onboard gigabit ethernet, Intel 82579		
Security chip	STMicroelectronics ST33TPM12LPC, TCG 1.2-compliant		
Keyboard/Mouse	104-key keyboard (USB)/Optical Wheel Mouse (USB)		
Power supply	610 watts with 120mm bottom-mounted variable speed fan, universal, Climate Savers® Computing Gold, 80 PLUS® Gold qualified		

<div>SECURITY</div> <div><ul style="list-style-type: none"><li>Security chip (see information on left)</li><li>Side cover lock (ships with two identical keys)</li><li>Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)</li><li>Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)</li><li>Power-on password</li><li>Administrator password</li><li>Boot sequence control</li><li>Boot without keyboard, mouse, diskette</li><li>Serial port I/O enable/disable</li><li>USB 2.0 ports enable/disable individually</li><li>USB 3.0 ports enable/disable concurrently</li><li>Chassis intrusion switch on selected model(s)</li></ul></div>
<div>ISV certifications</div> <div>Please visit <a href="http://www.lenovo.com/support/ISV">www.lenovo.com/support/ISV</a></div>
<div>Environmental certifications</div> <div>GREENGUARD® certified</div> <div>RoHS-compliant</div> <div>EPEAT™ Gold rating</div>
Supports ThinkVantage® technologies

See footnotes for important warranty information  
 Model(s) announced September 10, 2013

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 (4352-9E) September 2013

# ThinkStation S30 (4352) - TopSeller (September 2013) - II

Product Specifications Reference (PSREF)

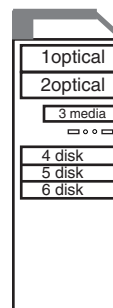
Type-model <sup>†</sup>	Processor(s) - Xeon E5 Family	Memory (MHz/type)	Memory DIMMs	Upgrade ROM for onboard drive controller	Pre-conf RAID	Hard drive(s)**	Optical	29-in-1 Media reader	Graphics adapter(s) and GPU computing***	1394 adptr	Chassis intrusion switch	Preloaded OS
4352-B2G	E5-1650 v2 (6C/3.5GHz/12MB/1866)	1600MHz UDIMM	4GBx2	SAS	No	1x146GB 2.5" SAS	DVD±RW	Media	1xQuadro K2000 (2GB, 1xDVI-I DL, 2xDP, 51W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-B3G	E5-1650 v2 (6C/3.5GHz/12MB/1866)	1600MHz UDIMM	4GBx2	No	No	1TB 3.5" SATA + 128GB 2.5" SSD	DVD±RW	Media	No	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-B4G	E5-1620 v2 (4C/3.7GHz/10MB/1866)	1600MHz UDIMM	4GBx1	No	No	1x240GB 2.5" SSD	DVD±RW	Media	1xQuadro K600 (1GB, 1xDVI-I DL, 1xDP, 41W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-B5G	E5-1660 v2 (6C/3.7GHz/15MB/1866)	1600MHz UDIMM	4GBx2	No	No	1x3TB 3.5" SATA	DVD±RW	Media	1xQuadro K2000 (2GB, 1xDVI-I DL, 2xDP, 51W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-B6G	E5-1620 v2 (4C/3.7GHz/10MB/1866)	1600MHz RDIMM	4GBx2	No	No	1x1TB 3.5" SATA	DVD±RW	Media	1xQuadro K2000 (2GB, 1xDVI-I DL, 2xDP, 51W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-B7G	E5-1620 v2 (4C/3.7GHz/10MB/1866)	1600MHz RDIMM	4GBx2	SAS	No	1x146GB 2.5" SAS	DVD±RW	Media	No	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-G1G	E5-1620 v2 (4C/3.7GHz/10MB/1866)	1600MHz UDIMM	4GBx2	No	No	1x1TB 3.5" SATA	DVD±RW	Media	No	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-G2G	E5-1620 v2 (4C/3.7GHz/10MB/1866)	1600MHz RDIMM	4GBx1	No	No	1x1TB 3.5" SATA	DVD±RW	Media	No	No	Switch	Win7 Pro64 (Downgrade from Win8)

\* Model in *italics* shows that this is a Global Model \*\* The SSD drives in *italics* must be plugged into red or orange SATA connectors \*\*\* DL = Dual Link, SL = Single Link

- 3-year limited warranty
- For ThinkStation S30 Platform Specifications, please see [ThinkStation S30 Platform Specifications sheet](#)

Chipset	<b>Intel C602 Chipset</b>	
Intel AMT	Intel Active Management Technology 8 supported	
Processor	One LGA2011 socket, integrated 4-channel DDR3 memory controller	
Memory	<b>UDIMM or RDIMM, ECC, DDR3</b> , 4-channel capable, eight 240-pin DIMM sockets, 64GB max (UDIMM, 8GBx8)/256GB max (RDIMM, 32GBx8)	
Additional memory disclaimers	<ul style="list-style-type: none"> <li>• Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs</li> <li>• Mixing of RDIMM and UDIMM is not supported</li> </ul>	
Graphics adapters and GPU computing	Two PCI Express 3.0 x16 slots for graphics adapters and GPU computing processors, supports NVIDIA SLI technology, NVIDIA Maximus technology	
Onboard drive controllers	<ul style="list-style-type: none"> <li>• Four SATA connectors via integrated Advanced Host Controller Interface (AHCI) in chipset, two SATA 6.0Gb/s (red), two SATA 3.0Gb/s (orange), RAID 0, 1 support;</li> <li>• Three SATA connectors via integrated Storage Controller Unit (SCU) in chipset, SATA 3.0Gb/s, RAID 0, 1, 5 support</li> </ul>	
Upgrade ROM for onboard drive controllers (opt)	Optional SAS HDD Enablement Module upgrades the 3 SATA connectors on SCU to 3 SATA/SAS connectors, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID 0, 1 support	
Discrete drive controller (opt)	None	
Hard drives	3.5" SATA:	SATA 6.0Gb/s, 7200 rpm
	3.5" Hybrid:	SATA 6.0Gb/s, 7200 rpm, integrated 8GB NAND flash
	2.5" SATA:	SATA 6.0Gb/s, 10000 rpm
	3.5" SAS/2.5" SAS:	SAS 6.0Gb/s, 15000 rpm
	2.5" SSD:	Solid State Drive (SSD), SATA 6.0Gb/s OPAL-capable on some models
Optical	Supports DVD-ROM, DVD±RW, or Blu-ray Burner, SATA interface	
Media reader (opt)	Optional media card reader on selected models	
Front ports	Two USB 3.0, microphone (3.5mm), headphone (3.5mm)	
Rear ports	Eight USB 2.0, two USB 3.0 (blue), one serial (9-pin), one ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in)	
IEEE 1394 adptr (opt)	None. Optional FireWire PCIe adapter on selected models, 1394a-2000, 400Mbps, two 6-pin ports on rear	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec	
Speaker	Internal speaker for business audio	
Onboard Ethernet	One onboard gigabit ethernet, Intel 82579	
Security chip	STMicroelectronics ST33TPM12LPC, TCG 1.2-compliant	
Keyboard/Mouse	104-key keyboard (USB)/Optical Wheel Mouse (USB)	
Power supply	610 watts with 120mm bottom-mounted variable speed fan, universal, <b>Climate Savers® Computing Gold, 80 PLUS® Gold</b> qualified	

## Tower



- Raven black color; metal case
- 6.9"W x 18.1"D x 18.8"H (with handle)
- 175mm W x 460mm D x 478mm H
- 38.5 lb (17.5kg) max configuration
- 31-liter
- Removable handle on top front
- Toolless side cover removal
- Toolless disk and optical drive removal
- Toolless adapter retention
- Illuminated front icons
- Rack shelf support

Bay 1-2: 5.25", 1.6" high, external, for optical  
 Bay 3: 3.5", 1" high, external, for media reader  
 Bay 4-6: 3.5", 1" high, internal, for hard drive

Slot 1: full-length, full-height, PCIe 3.0 x16\*\* (near CPU)  
 Slot 2: full-length, full-height, PCIe 3.0 x16 (x4 electrical)  
 Slot 3: full-length, full-height, PCIe 3.0 x16\*\*  
 Slot 4: full-length, full-height, 32-bit PCI 2.3  
 Slot 5: half-length, full-height, PCIe 2.0 x4

\*\* Adapters >75W use auxiliary power connector(s) from PSU

## SECURITY

- Security chip (see information on left)
- Side cover lock (ships with two identical keys)
- Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)
- Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)
- Power-on password
- Administrator password
- Boot sequence control
- Boot without keyboard, mouse, diskette
- Serial port I/O enable/disable
- USB 2.0 ports enable/disable individually
- USB 3.0 ports enable/disable concurrently
- Chassis intrusion switch on selected model(s)

## ISV certifications

Please visit [www.lenovo.com/support/ISV](http://www.lenovo.com/support/ISV)

## Environmental certifications

GREENGUARD® certified  
 RoHS-compliant  
 EPEAT™ Gold rating

Supports ThinkVantage® technologies

See footnotes for important warranty information  
 Model(s) announced September 10, 2013

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 (4352-10E) September 2013



# ThinkStation S30 (4352) - TopSeller (March 2014)

Product Specifications Reference (PSREF)

Type-model <sup>†</sup>	Processor(s) - Xeon E5 Family	Memory (MHz/type)	Memory DIMMs	Upgrade ROM for onboard drive controller	Pre-conf RAID	Hard drive(s)**	Optical	29-in-1 Media reader	Graphics adapter(s) and GPU computing***	1394 adptr	Chassis intrusion switch	Preloaded OS
4352-M9G	E5-1620 v2 4C/3.7GHz/10MB/1866	1600MHz UDIMM	2GBx2	No	No	1x1TB 3.5" SATA	DVD±RW	No	Open	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-N1G	E5-1650 v2 6C/3.5GHz/12MB/1866	1600MHz UDIMM	2GBx2	No	No	1x1TB 3.5" SATA	DVD±RW	No	Open	No	Switch	Win7 Pro64 (Downgrade from Win8)

\* Model in *italics* shows that this is a Global Model \*\* The SSD drives in *italics* must be plugged into red or orange SATA connectors \*\*\* DL = Dual Link, SL = Single Link

- 3-year limited warranty
- For ThinkStation S30 Platform Specifications, please see [ThinkStation S30 Platform Specifications sheet](#)

Chipset	Intel C602 Chipset	
Intel AMT	Intel Active Management Technology 8 supported	
Processor	One LGA2011 socket, integrated 4-channel DDR3 memory controller	
Memory	UDIMM or RDIMM, ECC, DDR3, 4-channel capable, eight 240-pin DIMM sockets, 64GB max (UDIMM, 8GBx8)/256GB max (RDIMM, 32GBx8)	
Additional memory disclaimers	<ul style="list-style-type: none"><li>• Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs</li><li>• Mixing of RDIMM and UDIMM is not supported</li></ul>	
Graphics adapters and GPU computing	Two PCI Express 3.0 x16 slots for graphics adapters and GPU computing processors, supports NVIDIA SLI technology, NVIDIA Maximus technology	
Onboard drive controllers	<ul style="list-style-type: none"><li>• Four SATA connectors via integrated Advanced Host Controller Interface (AHCI) in chipset, two SATA 6.0Gb/s (red), two SATA 3.0Gb/s (orange), RAID 0, 1 support;</li><li>• Three SATA connectors via integrated Storage Controller Unit (SCU) in chipset, SATA 3.0Gb/s, RAID 0, 1, 5 support</li></ul>	
Upgrade ROM for onboard drive controllers (opt)	Optional SAS HDD Enablement Module upgrades the 3 SATA connectors on SCU to 3 SATA/SAS connectors, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID 0, 1 support	
Discrete drive controller (opt)	None	
Hard drives	3.5" SATA:	SATA 6.0Gb/s, 7200 rpm
	3.5" Hybrid:	SATA 6.0Gb/s, 7200 rpm, integrated 8GB NAND flash
	2.5" SATA:	SATA 6.0Gb/s, 10000 rpm
	3.5" SAS/2.5" SAS:	SAS 6.0Gb/s, 15000 rpm
	2.5" SSD:	Solid State Drive (SSD), SATA 6.0Gb/s
		OPAL-capable on some models
Optical	Supports DVD-ROM, DVD±RW, or Blu-ray Burner, SATA interface	
Media reader (opt)	Optional media card reader on selected models	
Front ports	Two USB 3.0, microphone (3.5mm), headphone (3.5mm)	
Rear ports	Eight USB 2.0, two USB 3.0 (blue), one serial (9-pin), one ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in)	
IEEE 1394 adptr (opt)	None. Optional FireWire PCIe adapter on selected models, 1394a-2000, 400Mbps, two 6-pin ports on rear	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec	
Speaker	Internal speaker for business audio	
Onboard Ethernet	One onboard gigabit ethernet, Intel 82579	
Security chip	STMicroelectronics ST33TPM12LPC, TCG 1.2-compliant	
Keyboard/Mouse	104-key keyboard (USB)/Optical Wheel Mouse (USB)	
Power supply	610 watts with 120mm bottom-mounted variable speed fan, universal, Climate Savers® Computing Gold, 80 PLUS® Gold qualified	

<div>Tower</div> <div><div><div>1 optical</div><div>2 optical</div><div>3 media</div><div>4 disk</div><div>5 disk</div><div>6 disk</div></div></div>	<ul style="list-style-type: none"><li>• Raven black color; metal case</li><li>• 6.9"W x 18.1"D x 18.8"H (with handle)</li><li>• 175mm W x 460mm D x 478mm H</li><li>• 38.5 lb (17.5kg) max configuration</li><li>• 31-liter</li><li>• Removable handle on top front</li><li>• Toolless side cover removal</li><li>• Toolless disk and optical drive removal</li><li>• Toolless adapter retention</li><li>• Illuminated front icons</li><li>• Rack shelf support</li></ul>
Bay 1-2: 5.25", 1.6" high, external, for optical	
Bay 3: 3.5", 1" high, external, for media reader	
Bay 4-6: 3.5", 1" high, internal, for hard drive	
Slot 1: full-length, full-height, PCIe 3.0 x16** (near CPU)	
Slot 2: full-length, full-height, PCIe 3.0 x16 (x4 electrical)	
Slot 3: full-length, full-height, PCIe 3.0 x16**	
Slot 4: full-length, full-height, 32-bit PCI 2.3	
Slot 5: half-length, full-height, PCIe 2.0 x4	
** Adapters >75W use auxiliary power connector(s) from PSU	

<div>SECURITY</div> <ul style="list-style-type: none"><li>• Security chip (see information on left)</li><li>• Side cover lock (ships with two identical keys)</li><li>• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)</li><li>• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)</li><li>• Power-on password</li><li>• Administrator password</li><li>• Boot sequence control</li><li>• Boot without keyboard, mouse, diskette</li><li>• Serial port I/O enable/disable</li><li>• USB 2.0 ports enable/disable individually</li><li>• USB 3.0 ports enable/disable concurrently</li><li>• Chassis intrusion switch on selected model(s)</li></ul>
<div>ISV certifications</div> <p>Please visit <a href="http://www.lenovo.com/support/ISV">www.lenovo.com/support/ISV</a></p>
<div>Environmental certifications</div> <p>GREENGUARD® certified RoHS-compliant EPEAT™ Gold rating</p>
Supports ThinkVantage® technologies

See footnotes for important warranty information  
Model(s) announced March 25, 2014

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(4352-11E) March 2014



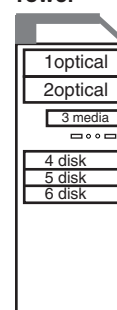
Type-model <sup>1</sup>	Processor(s) - Xeon E5 Family	Memory (MHz/type)	Memory DIMMs	Upgrade ROM for onboard drive controller	Pre-conf RAID	Hard drive(s)**	Optical	29-in-1 Media reader	Graphics adapter(s) and GPU computing***	1394 adptr	Chassis intrusion switch	Preloaded OS
4352-L4G	Xeon E5-1607 v2 4C/3GHz/10MB/1600MHz	1600MHz UDIMM	4GBx1	No	No	1x1TB 3.5" SATA	DVD±RW	Media	Open	No	Switch	Win7 Pro64 (Downgrade from Win8.1)
4352-L5G	Xeon E5-1620 v2 4C/3.7GHz/10MB/1866MHz	1600MHz UDIMM	4GBx2	No	No	1x1TB 3.5" SATA	DVD±RW	Media	Open	No	Switch	Win7 Pro64 (Downgrade from Win8.1)
4352-L6G	Xeon E5-1620 v2 4C/3.7GHz/10MB/1866MHz	1600MHz RDIMM	4GBx2	No	No	1x1TB 3.5" SATA	DVD±RW	Media	1xQuadro K2000 2GB/1xDVI-I DL/ 2xDP/51W	No	Switch	Win7 Pro64 (Downgrade from Win8.1)
4352-L7G	Xeon E5-1650 v2 6C/3.5GHz/12MB/1866MHz	1600MHz UDIMM	4GBx1	No	No	1x1TB 3.5" SATA	DVD±RW	Media	Open	No	Switch	Win7 Pro64 (Downgrade from Win8.1)
4352-M9G	Xeon E5-1620 v2 4C/3.7GHz/10MB/1866MHz	1600MHz UDIMM	2GBx2	No	No	1x1TB 3.5" SATA	DVD±RW	No	Open	No	Switch	Win7 Pro64 (Downgrade from Win8)
4352-N1G	Xeon E5-1650 v2 6C/3.5GHz/12MB/1866MHz	1600MHz UDIMM	2GBx2	No	No	1x1TB 3.5" SATA	DVD±RW	No	Open	No	Switch	Win7 Pro64 (Downgrade from Win8)

\* Model in *italics* shows that this is a Global Model    \*\* The SSD drives in *italics* must be plugged into red or orange SATA connectors    \*\*\* DL = Dual Link, SL = Single Link

- 3-year limited warranty
- For ThinkStation S30 Platform Specifications, please see [ThinkStation S30 Platform Specifications sheet](#)

Chipset	<b>Intel C602 Chipset</b>	
Intel AMT	Intel Active Management Technology 8 supported	
Processor	One LGA2011 socket, integrated 4-channel DDR3 memory controller	
Memory	<b>UDIMM or RDIMM, ECC, DDR3</b> , 4-channel capable, eight 240-pin DIMM sockets, 64GB max (UDIMM, 8GBx8)/256GB max (RDIMM, 32GBx8)	
Additional memory disclaimers	<ul style="list-style-type: none"> <li>• Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs</li> <li>• Mixing of RDIMM and UDIMM is not supported</li> </ul>	
Graphics adapters and GPU computing	Two PCI Express 3.0 x16 slots for graphics adapters and GPU computing processors, supports NVIDIA SLI technology, NVIDIA Maximus technology	
Onboard drive controllers	<ul style="list-style-type: none"> <li>• Four SATA connectors via integrated Advanced Host Controller Interface (AHCI) in chipset, two SATA 6.0Gb/s (red), two SATA 3.0Gb/s (orange), RAID 0, 1 support;</li> <li>• Three SATA connectors via integrated Storage Controller Unit (SCU) in chipset, SATA 3.0Gb/s, RAID 0, 1, 5 support</li> </ul>	
Upgrade ROM for onboard drive controllers (opt)	Optional SAS HDD Enablement Module upgrades the 3 SATA connectors on SCU to 3 SATA/SAS connectors, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID 0, 1 support	
Discrete drive controller (opt)	None	
Hard drives	3.5" SATA:	SATA 6.0Gb/s, 7200 rpm
	3.5" Hybrid:	SATA 6.0Gb/s, 7200 rpm, integrated 8GB NAND flash
	2.5" SATA:	SATA 6.0Gb/s, 10000 rpm
	3.5" SAS/2.5" SAS:	SAS 6.0Gb/s, 15000 rpm
	2.5" SSD:	Solid State Drive (SSD), SATA 6.0Gb/s OPAL-capable on some models
Optical	Supports DVD-ROM, DVD±RW, or Blu-ray Burner, SATA interface	
Media reader (opt)	Optional media card reader on selected models	
Front ports	Two USB 3.0, microphone (3.5mm), headphone (3.5mm)	
Rear ports	Eight USB 2.0, two USB 3.0 (blue), one serial (9-pin), one ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in)	
IEEE 1394 adptr (opt)	None. Optional FireWire PCIe adapter on selected models, 1394a-2000, 400Mbps, two 6-pin ports on rear	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec	
Speaker	Internal speaker for business audio	
Onboard Ethernet	One onboard gigabit ethernet, Intel 82579	
Security chip	STMicroelectronics ST33TPM12LPC, TCG 1.2-compliant	
Keyboard/Mouse	104-key keyboard (USB)/Optical Wheel Mouse (USB)	
Power supply	610 watts with 120mm bottom-mounted variable speed fan, universal, <b>Climate Savers® Computing Gold, 80 PLUS® Gold</b> qualified	
ISV certifications	Please visit <a href="http://www.lenovo.com/support/ISV">www.lenovo.com/support/ISV</a>	

## Tower



- Raven black color; metal case
- 6.9"W x 18.1"D x 18.8"H (with handle)
- 175mm W x 460mm D x 478mm H
- 38.5 lb (17.5kg) max configuration
- 31-liter
- Removable handle on top front
- Toolless side cover removal
- Toolless disk and optical drive removal
- Toolless adapter retention
- Illuminated front icons
- Rack shelf support

Bay 1-2: 5.25", 1.6" high, external, for optical  
 Bay 3: 3.5", 1" high, external, for media reader  
 Bay 4-6: 3.5", 1" high, internal, for hard drive

Slot 1: full-length, full-height, PCIe 3.0 x16\*\* (near CPU)  
 Slot 2: full-length, full-height, PCIe 3.0 x16 (x4 electrical)  
 Slot 3: full-length, full-height, PCIe 3.0 x16\*\*  
 Slot 4: full-length, full-height, 32-bit PCI 2.3  
 Slot 5: half-length, full-height, PCIe 2.0 x4

\*\* Adapters >75W use auxiliary power connector(s) from PSU

## SECURITY

- Security chip (see information on left)
- Side cover lock (ships with two identical keys)
- Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)
- Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)
- Power-on password
- Administrator password
- Boot sequence control
- Boot without keyboard, mouse, diskette
- Serial port I/O enable/disable
- USB 2.0 ports enable/disable individually
- USB 3.0 ports enable/disable concurrently
- Chassis intrusion switch on selected model(s)

## Environmental certifications

GREENGUARD® certified  
 RoHS-compliant  
 EPEAT™ Gold rating

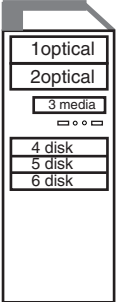
Supports ThinkVantage® technologies

Type-model <sup>1</sup>	Processor(s)	Memory (MHz/type)	Memory DIMMs	Upgrade ROM for onboard drive controller	Discrete drive controller	Pre-conf RAID	Hard drive(s) <sup>2</sup>	Optical	Media reader	Graphics adapter(s) and GPU computing	1394 adptr	Chassis intrusion switch	Preloaded OS
4351-16G	E5-1620 (4C/3.6GHz/10MB/1600)	1600MHz UDIMM	4GBx2	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro K4000 (3GB, 1xDVI-I DL*, 2xDP, 80W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4351-19G	E5-1620 (4C/3.6GHz/10MB/1600)	1600MHz UDIMM	4GBx1	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro K2000 (2GB, 1xDVI-I DL, 2xDP, 51W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4351-24G	E5-1620 (4C/3.6GHz/10MB/1600)	1600MHz UDIMM	4GBx1	No	No	No	1x1TB 3.5" SATA	DVD±RW	29-in-1	1xQuadro K2000 (2GB, 1xDVI-I DL, 2xDP, 51W)	No	Switch	Win8 Pro64
4351-29G	E5-1620 (4C/3.6GHz/10MB/1600)	1600MHz UDIMM	4GBx1	SAS	No	No	1x300GB 3.5" SAS	DVD±RW	29-in-1	1xQuadro K600 (1GB, 1xDVI-I DL, 1xDP, 41W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
4351-31G	E5-1620 (4C/3.6GHz/10MB/1600)	1600MHz UDIMM	4GBx1	SAS	No	No	1x300GB 3.5" SAS	DVD±RW	29-in-1	1xQuadro K600 (1GB, 1xDVI-I DL, 1xDP, 41W)	No	Switch	Win8 Pro64

<sup>1</sup> Model in *italics* shows that this is a Global Model<sup>2</sup> The SSD drives in *italics* must be plugged into red or orange SATA connectors

\* DL = Dual Link, SL = Single Link

- **3-year limited warranty**
- **With new MT type 4351/4352 and beyond, ThinkStation S30 introduces new updates to improve the functionality and usability:**
  - (These new features are not supported on 0568, 0569, and 0606 MT models)
    - Intel AMT: upgrades to Intel AMT 8 from Intel AMT 7
    - New TPM chip: STMicroelectronics ST33TPM12LPC
    - Two front USB 2.0 ports upgrade to USB3.0
- **For ThinkStation S30 Platform Specifications, please see [ThinkStation S30 Platform Specifications](#) sheet**

Chipset	<b>Intel C602 Chipset</b>		<b>Tower</b>	
Processor	One LGA2011 socket, supports one processor from <b>Intel Xeon E5-2600</b> and <b>E5-1600</b> family, integrated 4-channel DDR3 memory controller		 <ul style="list-style-type: none"> <li>• Raven black color; metal case</li> <li>• 6.9"W x 18.1"D x 18.8"H (with handle)</li> <li>• 175mm W x 460mm D x 478mm H</li> <li>• 38.5 lb (17.5kg) max configuration</li> <li>• 31-liter</li> <li>• Removable handle on top front</li> <li>• Toolless side cover removal</li> <li>• Toolless disk and optical drive removal</li> <li>• Toolless adapter retention</li> <li>• Illuminated front icons</li> <li>• Rack shelf support</li> </ul>	
Memory	<b>UDIMM or RDIMM, ECC, DDR3</b> , 4-channel capable, eight 240-pin DIMM sockets, 64GB max (UDIMM, 8GBx8)/256GB max (RDIMM, 32GBx8)		Bay 1-2: 5.25", 1.6" high, external, for optical Bay 3: 3.5", 1" high, external, for media reader Bay 4-6: 3.5", 1" high, internal, for hard drive	
Additional memory disclaimers	<ul style="list-style-type: none"> <li>• Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs</li> <li>• Mixing of RDIMM and UDIMM is not supported</li> </ul>		Slot 1: full-length, full-height, PCIe 3.0 x16** (near CPU) Slot 2: full-length, full-height, PCIe 3.0 x16 (x4 electrical) Slot 3: full-length, full-height, PCIe 3.0 x16** Slot 4: full-length, full-height, 32-bit PCI 2.3 Slot 5: half-length, full-height, PCIe 2.0 x4 ** Adapters >75W use auxiliary power connector(s) from PSU	
Graphics adapters and GPU computing	Two PCI Express 3.0 x16 slots for graphics adapters and GPU computing processors, supports NVIDIA SLI technology, NVIDIA Maximus technology		<b>SECURITY</b>	
Onboard drive controllers	<ul style="list-style-type: none"> <li>• Four SATA connectors via integrated Advanced Host Controller Interface (AHCI) in chipset, two SATA 6.0Gb/s (red), two SATA 3.0Gb/s (orange), RAID 0, 1 support;</li> <li>• Three SATA connectors via integrated Storage Controller Unit (SCU) in chipset, SATA 3.0Gb/s, RAID 0, 1, 5 support</li> </ul>		<ul style="list-style-type: none"> <li>• Security chip (see information on left)</li> <li>• Side cover lock (ships with two identical keys)</li> <li>• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)</li> <li>• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)</li> <li>• Power-on password</li> <li>• Administrator password</li> <li>• Boot sequence control</li> <li>• Boot without keyboard, mouse, diskette</li> <li>• Serial port I/O enable/disable</li> <li>• USB 2.0 ports enable/disable individually</li> <li>• USB 3.0 ports enable/disable concurrently</li> <li>• Chassis intrusion switch on selected model(s)</li> </ul>	
Upgrade ROM for onboard drive controllers (opt)	Optional SAS HDD Enablement Module upgrades the 3 SATA connectors on SCU to 3 SATA/SAS connectors, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID 0, 1 support		<b>Intel AMT</b>	
Discrete drive controller (opt)	<i>One the following, depending on model:</i> LSI SAS 9240-8i: SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1 support optional upgrade key for RAID 5 support LSI SAS 9260-8i: SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1, 5 support		Intel Active Management Technology 8	
Hard drives	3.5" SATA: SATA 6.0Gb/s, 7200 rpm 2.5" SATA: SATA 6.0Gb/s, 10000 rpm 3.5" SAS/2.5" SAS: SAS 6.0Gb/s, 15000 rpm 2.5" SSD: Solid State Drive (SSD), SATA 6.0Gb/s, OPAL-capable on selected models		<b>ISV certifications</b>	
Optical	Supports DVD-ROM, DVD±RW, or Blu-ray Burner, SATA interface		Please visit <a href="http://www.lenovo.com/support/ISV">www.lenovo.com/support/ISV</a>	
Media reader (opt)	Optional media card reader on selected models		<b>Environmental certifications</b>	
Front ports	Two USB 3.0, microphone (3.5mm), headphone (3.5mm)		GREENGUARD® certified	
Rear ports	Eight USB 2.0, two USB 3.0 (blue), one serial (9-pin), one ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in)		RoHS-compliant	
IEEE 1394 adptr (opt)	None. Optional FireWire PCIe adapter on selected models, 1394a-2000, 400Mbps, two 6-pin ports on rear		EPEAT™ Gold rating	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		Supports ThinkVantage® technologies	
Speaker	Internal speaker for business audio			
Onboard Ethernet	One onboard gigabit ethernet, Intel 82579			
Security chip	STMicroelectronics ST33TPM12LPC, TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black			
Mouse	Optical Wheel Mouse (USB connector), black			
Power supply	610 watts with 120mm bottom-mounted variable speed fan, universal, <b>Climate Savers® Computing Gold, 80 PLUS® Gold</b> qualified			
Preloaded operating systems (OS)	<i>One the following, depending on model:</i> <ul style="list-style-type: none"> <li>• Windows 7 Professional 64</li> <li>• Windows 7 Professional 64 preinstalled through downgrade rights in Windows 8 Pro 64-bit</li> <li>• Windows 8 Pro 64-bit</li> </ul>			

Type-model <sup>†</sup>	Processor(s) - Xeon E5 Family	Memory (MHz/type)	Memory DIMMs	Upgrade ROM for onboard drive controller	Pre-conf RAID	Hard drive(s)**	Optical	29-in-1 Media reader	Graphics adapter(s) and GPU computing***	1394 adptr	Chassis intrusion switch	Preloaded OS
4351-98G	E5-1650 v2 (6C/3.5GHz/12MB/1866)	1600MHz UDIMM	4GBx1	No	No	1x1TB 3.5" SATA	DVD±RW	Media	1xQuadro K2000 (2GB, 1xDVI-I DL, 2xDP, 51W)	No	Switch	Win7 Pro64 (Downgrade from Win8)

\* Model in *italics* shows that this is a Global Model    \*\* The SSD drives in *italics* must be plugged into red or orange SATA connectors    \*\*\* DL = Dual Link, SL = Single Link

- 3-year limited warranty
- For ThinkStation S30 Platform Specifications, please see [ThinkStation S30 Platform Specifications sheet](#)

Chipset	Intel C602 Chipset	
Intel AMT	Intel Active Management Technology 8 supported	
Processor	One LGA2011 socket, integrated 4-channel DDR3 memory controller	
Memory	UDIMM or RDIMM, ECC, DDR3, 4-channel capable, eight 240-pin DIMM sockets, 64GB max (UDIMM, 8GBx8)/256GB max (RDIMM, 32GBx8)	
Additional memory disclaimers	<ul style="list-style-type: none"><li>• Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs</li><li>• Mixing of RDIMM and UDIMM is not supported</li></ul>	
Graphics adapters and GPU computing	Two PCI Express 3.0 x16 slots for graphics adapters and GPU computing processors, supports NVIDIA SLI technology, NVIDIA Maximus technology	
Onboard drive controllers	<ul style="list-style-type: none"><li>• Four SATA connectors via integrated Advanced Host Controller Interface (AHCI) in chipset, two SATA 6.0Gb/s (red), two SATA 3.0Gb/s (orange), RAID 0, 1 support;</li><li>• Three SATA connectors via integrated Storage Controller Unit (SCU) in chipset, SATA 3.0Gb/s, RAID 0, 1, 5 support</li></ul>	
Upgrade ROM for onboard drive controllers (opt)	Optional SAS HDD Enablement Module upgrades the 3 SATA connectors on SCU to 3 SATA/SAS connectors, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID 0, 1 support	
Discrete drive controller (opt)	None	
Hard drives	3.5" SATA:	SATA 6.0Gb/s, 7200 rpm
	3.5" Hybrid:	SATA 6.0Gb/s, 7200 rpm, integrated 8GB NAND flash
	2.5" SATA:	SATA 6.0Gb/s, 10000 rpm
	3.5" SAS/2.5" SAS:	SAS 6.0Gb/s, 15000 rpm
	2.5" SSD:	Solid State Drive (SSD), SATA 6.0Gb/s
		OPAL-capable on some models
Optical	Supports DVD-ROM, DVD±RW, or Blu-ray Burner, SATA interface	
Media reader (opt)	Optional media card reader on selected models	
Front ports	Two USB 3.0, microphone (3.5mm), headphone (3.5mm)	
Rear ports	Eight USB 2.0, two USB 3.0 (blue), one serial (9-pin), one ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in)	
IEEE 1394 adptr (opt)	None. Optional FireWire PCIe adapter on selected models, 1394a-2000, 400Mbps, two 6-pin ports on rear	
Audio	High Definition (HD) Audio, Realtek® ALC662 codec	
Speaker	Internal speaker for business audio	
Onboard Ethernet	One onboard gigabit ethernet, Intel 82579	
Security chip	STMicroelectronics ST33TPM12LPC, TCG 1.2-compliant	
Keyboard/Mouse	104-key keyboard (USB)/Optical Wheel Mouse (USB)	
Power supply	610 watts with 120mm bottom-mounted variable speed fan, universal, <b>Climate Savers® Computing Gold, 80 PLUS® Gold</b> qualified	

<div>Tower</div> <div><div>1 optical</div><div>2 optical</div><div>3 media</div><div>4 disk</div><div>5 disk</div><div>6 disk</div></div>	<ul style="list-style-type: none"><li>• Raven black color; metal case</li><li>• 6.9"W x 18.1"D x 18.8"H (with handle)</li><li>• 175mm W x 460mm D x 478mm H</li><li>• 38.5 lb (17.5kg) max configuration</li><li>• 31-liter</li><li>• Removable handle on top front</li><li>• Toolless side cover removal</li><li>• Toolless disk and optical drive removal</li><li>• Toolless adapter retention</li><li>• Illuminated front icons</li><li>• Rack shelf support</li></ul>
Bay 1-2: 5.25", 1.6" high, external, for optical	
Bay 3: 3.5", 1" high, external, for media reader	
Bay 4-6: 3.5", 1" high, internal, for hard drive	
Slot 1: full-length, full-height, PCIe 3.0 x16** (near CPU)	
Slot 2: full-length, full-height, PCIe 3.0 x16 (x4 electrical)	
Slot 3: full-length, full-height, PCIe 3.0 x16**	
Slot 4: full-length, full-height, 32-bit PCI 2.3	
Slot 5: half-length, full-height, PCIe 2.0 x4	
** Adapters >75W use auxiliary power connector(s) from PSU	

<div>SECURITY</div> <ul style="list-style-type: none"><li>• Security chip (see information on left)</li><li>• Side cover lock (ships with two identical keys)</li><li>• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)</li><li>• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)</li><li>• Power-on password</li><li>• Administrator password</li><li>• Boot sequence control</li><li>• Boot without keyboard, mouse, diskette</li><li>• Serial port I/O enable/disable</li><li>• USB 2.0 ports enable/disable individually</li><li>• USB 3.0 ports enable/disable concurrently</li><li>• Chassis intrusion switch on selected model(s)</li></ul>
<div>ISV certifications</div> <p>Please visit <a href="http://www.lenovo.com/support/ISV">www.lenovo.com/support/ISV</a></p>
<div>Environmental certifications</div> <p>GREENGUARD® certified</p> <p>RoHS-compliant</p> <p>EPEAT™ Gold rating</p>
Supports ThinkVantage® technologies



Type-model <sup>†</sup>	Processor(s) - Xeon E5 Family	Memory (MHz/type)	Memory DIMMs	Upgrade ROM for onboard drive controller	Pre-conf RAID	Hard drive(s)**	Optical	29-in-1 Media reader	Graphics adapter(s) and GPU computing***	1394 adptr	Chassis intrusion switch	Preloaded OS
<i>4351-D1G</i>	E5-1620 v2 4C/3.7GHz/10MB/1866MHz	1600MHz UDIMM	4GBx1	No	No	1x1TB 3.5" SATA	DVD±RW	Media	1xQuadro K600 (1GB, 1xDVI-I DL, 1xDP, 41W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
<i>4351-D2G</i>	E5-1620 v2 4C/3.7GHz/10MB/1866MHz	1600MHz UDIMM	4GBx1	No	No	1x1TB 3.5" SATA	DVD±RW	Media	1xQuadro K2000 (2GB, 1xDVI-I DL, 2xDP, 51W)	No	Switch	Win7 Pro64 (Downgrade from Win8)
<i>4351-D6G</i>	E5-1650 v2 6C/3.5GHz/12MB/1866MHz	1600MHz UDIMM	8GBx1	No	No	1x256GB 2.5" SSD - OPAL	DVD±RW	Media	1xQuadro K4000 (3GB, 1xDVI-I DL, 2xDP, 80W)	No	Switch	Win7 Pro64 (Downgrade from Win8)

\* Model in italics shows that this is a Global Model \*\* The SSD drives in italics must be plugged into red or orange SATA connectors \*\*\* DL = Dual Link, SL = Single Link

- 3-year limited warranty
- For ThinkStation S30 Platform Specifications, please see [ThinkStation S30 Platform Specifications sheet](#)

Chipset	<b>Intel C602 Chipset</b>		<div><div>Tower</div><div><div><div>1optical</div><div>2optical</div><div>3media</div><div>4disk</div><div>5disk</div><div>6disk</div></div><div>Bay 1-2: 5.25", 1.6" high, external, for optical</div><div>Bay 3: 3.5", 1" high, external, for media reader</div><div>Bay 4-6: 3.5", 1" high, internal, for hard drive</div><div>Slot 1: full-length, full-height, PCIe 3.0 x16** (near CPU)</div><div>Slot 2: full-length, full-height, PCIe 3.0 x16 (x4 electrical)</div><div>Slot 3: full-length, full-height, PCIe 3.0 x16**</div><div>Slot 4: full-length, full-height, 32-bit PCI 2.3</div><div>Slot 5: half-length, full-height, PCIe 2.0 x4</div><div>** Adapters &gt;75W use auxiliary power connector(s) from PSU</div></div><div><div>SECURITY</div><div><ul style="list-style-type: none"><li>• Security chip (see information on left)</li><li>• Side cover lock (ships with two identical keys)</li><li>• Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)</li><li>• Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)</li><li>• Power-on password</li><li>• Administrator password</li><li>• Boot sequence control</li><li>• Boot without keyboard, mouse, diskette</li><li>• Serial port I/O enable/disable</li><li>• USB 2.0 ports enable/disable individually</li><li>• USB 3.0 ports enable/disable concurrently</li><li>• Chassis intrusion switch on selected model(s)</li></ul></div><div><div>ISV certifications</div><div>Please visit <a href="http://www.lenovo.com/support/ISV">www.lenovo.com/support/ISV</a></div><div><div>Environmental certifications</div><div>GREENGUARD® certified</div><div>RoHS-compliant</div><div>EPEAT™ Gold rating</div></div><div>Supports ThinkVantage® technologies</div></div></div></div>
Intel AMT	Intel Active Management Technology 8 supported		
Processor	One LGA2011 socket, integrated 4-channel DDR3 memory controller		
Memory	<b>UDIMM or RDIMM, ECC, DDR3</b> , 4-channel capable, eight 240-pin DIMM sockets, 64GB max (UDIMM, 8GBx8)/256GB max (RDIMM, 32GBx8)		
Additional memory disclaimers	<ul style="list-style-type: none"><li>• Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs</li><li>• Mixing of RDIMM and UDIMM is not supported</li></ul>		
Graphics adapters and GPU computing	Two PCI Express 3.0 x16 slots for graphics adapters and GPU computing processors, supports NVIDIA SLI technology, NVIDIA Maximus technology		
Onboard drive controllers	<ul style="list-style-type: none"><li>• Four SATA connectors via integrated Advanced Host Controller Interface (AHCI) in chipset, two SATA 6.0Gb/s (red), two SATA 3.0Gb/s (orange), RAID 0, 1 support;</li><li>• Three SATA connectors via integrated Storage Controller Unit (SCU) in chipset, SATA 3.0Gb/s, RAID 0, 1, 5 support</li></ul>		
Upgrade ROM for onboard drive controllers (opt)	Optional SAS HDD Enablement Module upgrades the 3 SATA connectors on SCU to 3 SATA/SAS connectors, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID 0, 1 support		
Discrete drive controller (opt)	None		
Hard drives	<div><div>3.5" SATA:</div><div>SATA 6.0Gb/s, 7200 rpm</div><div>3.5" Hybrid:</div><div>SATA 6.0Gb/s, 7200 rpm, integrated 8GB NAND flash</div><div>2.5" SATA:</div><div>SATA 6.0Gb/s, 10000 rpm</div><div>3.5" SAS/2.5" SAS:</div><div>SAS 6.0Gb/s, 15000 rpm</div><div>2.5" SSD:</div><div>Solid State Drive (SSD), SATA 6.0Gb/s</div><div>OPAL-capable on some models</div></div>		
Optical	Supports DVD-ROM, DVD±RW, or Blu-ray Burner, SATA interface		
Media reader (opt)	Optional media card reader on selected models		
Front ports	Two USB 3.0, microphone (3.5mm), headphone (3.5mm)		
Rear ports	Eight USB 2.0, two USB 3.0 (blue), one serial (9-pin), one ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in)		
IEEE 1394 adptr (opt)	None. Optional FireWire PCIe adapter on selected models, 1394a-2000, 400Mbps, two 6-pin ports on rear		
Audio	High Definition (HD) Audio, Realtek® ALC662 codec		
Speaker	Internal speaker for business audio		
Onboard Ethernet	One onboard gigabit ethernet, Intel 82579		
Security chip	STMicroelectronics ST33TPM12LPC, TCG 1.2-compliant		
Keyboard/Mouse	104-key keyboard (USB)/Optical Wheel Mouse (USB)		
Power supply	610 watts with 120mm bottom-mounted variable speed fan, universal, <b>Climate Savers® Computing Gold, 80 PLUS® Gold</b> qualified		



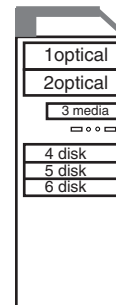
Type-model <sup>1</sup>	Processor(s) - Xeon E5 Family	Memory (MHz/type)	Memory DIMMs	Upgrade ROM for onboard drive controller	Pre-conf RAID	Hard drive(s)**	Optical	29-in-1 Media reader	Graphics adapter(s) and GPU computing***	1394 adptr	Chassis intrusion switch	Preloaded OS
4351-J6G	Xeon E5-1620 v2 4C/3.7GHz/10MB/1866MHz	1600MHz UDIMM	4GBx2	No	No	1x1TB 3.5" SATA	DVD±RW	Media	1xQuadro K600 1GB/1xDVI-I DL/ 1xDP/41W	No	Switch	Win7 Pro64
4351-J7G	Xeon E5-1603 4C/2.8GHz/10MB/1066MHz	1600MHz UDIMM	4GBx2	No	No	1x500GB 3.5" SATA	DVD±RW	Media	1xQuadro K2000 2GB/1xDVI-I DL/ 2xDP/51W	No	Switch	Win7 Pro64
4351-L6G	Xeon E5-1620 v2 4C/3.7GHz/10MB/1866MHz	1600MHz UDIMM	8GBx2	No	No	180GB 2.5" SSD +500GB 3.5" SATA	DVD±RW	Media	Open	No	Switch	Win7 Pro64

\* Model in *italics* shows that this is a Global Model \*\* The SSD drives in *italics* must be plugged into red or orange SATA connectors \*\*\* DL = Dual Link, SL = Single Link

- 3-year limited warranty
- For ThinkStation S30 Platform Specifications, please see [ThinkStation S30 Platform Specifications sheet](#)

Chipset	Intel C602 Chipset
Intel AMT	Intel Active Management Technology 8 supported
Processor	One LGA2011 socket, integrated 4-channel DDR3 memory controller
Memory	UDIMM or RDIMM, ECC, DDR3, 4-channel capable, eight 240-pin DIMM sockets, 64GB max (UDIMM, 8GBx8)/256GB max (RDIMM, 32GBx8)
Additional memory disclaimers	<ul style="list-style-type: none"> <li>• Actual memory operating speed depends on processor memory controller speed, installed memory speed, and quantity of memory DIMMs</li> <li>• Mixing of RDIMM and UDIMM is not supported</li> </ul>
Graphics adapters and GPU computing	Two PCI Express 3.0 x16 slots for graphics adapters and GPU computing processors, supports NVIDIA SLI technology, NVIDIA Maximus technology
Onboard drive controllers	<ul style="list-style-type: none"> <li>• Four SATA connectors via integrated Advanced Host Controller Interface (AHCI) in chipset, two SATA 6.0Gb/s (red), two SATA 3.0Gb/s (orange), RAID 0, 1 support;</li> <li>• Three SATA connectors via integrated Storage Controller Unit (SCU) in chipset, SATA 3.0Gb/s, RAID 0, 1, 5 support</li> </ul>
Upgrade ROM for onboard drive controllers (opt)	Optional SAS HDD Enablement Module upgrades the 3 SATA connectors on SCU to 3 SATA/SAS connectors, SATA 3.0Gb/s, SAS 3.0Gb/s, RAID 0, 1 support
Discrete drive controller (opt)	Optional LSI SAS 9240-8i, PCI Express bus, SATA 6.0Gb/s, SAS 6.0Gb/s, RAID 0, 1, 10 support, available on model <b>4351-L6G</b>
Hard drives	<b>3.5" SATA:</b> SATA 6.0Gb/s, 7200 rpm <b>3.5" Hybrid:</b> SATA 6.0Gb/s, 7200 rpm, integrated 8GB NAND flash <b>2.5" SATA:</b> SATA 6.0Gb/s, 10000 rpm <b>3.5" SAS/2.5" SAS:</b> SAS 6.0Gb/s, 15000 rpm <b>2.5" SSD:</b> Solid State Drive (SSD), SATA 6.0Gb/s OPAL-capable on some models
Optical	Supports DVD-ROM, DVD±RW, or Blu-ray Burner, SATA interface
Media reader (opt)	Optional media card reader on selected models
Front ports	Two USB 3.0, microphone (3.5mm), headphone (3.5mm)
Rear ports	Eight USB 2.0, two USB 3.0 (blue), one serial (9-pin), one ethernet (RJ-45), three analog audio ports (line-in, line-out, mic-in)
IEEE 1394 adptr (opt)	None. Optional FireWire PCIe adapter on selected models, 1394a-2000, 400Mbps, two 6-pin ports on rear
Audio	High Definition (HD) Audio, Realtek® ALC662 codec
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Onboard Ethernet	One onboard gigabit ethernet, Intel 82579
Security chip	STMicroelectronics ST33TPM12LPC, TCG 1.2-compliant
Keyboard/Mouse	104-key keyboard (USB)/Optical Wheel Mouse (USB)
Power supply	610 watts with 120mm bottom-mounted variable speed fan, universal, <b>Climate Savers® Computing Gold, 80 PLUS® Gold</b> qualified
ISV certifications	Please visit <a href="http://www.lenovo.com/support/ISV">www.lenovo.com/support/ISV</a>

#### Tower



- Raven black color; metal case
- 6.9"W x 18.1"D x 18.8"H (with handle)
- 175mm W x 460mm D x 478mm H
- 38.5 lb (17.5kg) max configuration
- 31-liter
- Removable handle on top front
- Toolless side cover removal
- Toolless disk and optical drive removal
- Toolless adapter retention
- Illuminated front icons
- Rack shelf support

Bay 1-2: 5.25", 1.6" high, external, for optical  
 Bay 3: 3.5", 1" high, external, for media reader  
 Bay 4-6: 3.5", 1" high, internal, for hard drive

Slot 1: full-length, full-height, PCIe 3.0 x16\*\* (near CPU)  
 Slot 2: full-length, full-height, PCIe 3.0 x16 (x4 electrical)  
 Slot 3: full-length, full-height, PCIe 3.0 x16\*\*  
 Slot 4: full-length, full-height, 32-bit PCI 2.3  
 Slot 5: half-length, full-height, PCIe 2.0 x4

\*\* Adapters >75W use auxiliary power connector(s) from PSU

#### SECURITY

- Security chip (see information on left)
- Side cover lock (ships with two identical keys)
- Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)
- Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)
- Power-on password
- Administrator password
- Boot sequence control
- Boot without keyboard, mouse, diskette
- Serial port I/O enable/disable
- USB 2.0 ports enable/disable individually
- USB 3.0 ports enable/disable concurrently
- Chassis intrusion switch on selected model(s)

#### Environmental certifications

GREENGUARD® certified  
 RoHS-compliant  
 EPEAT™ Gold rating

Supports ThinkVantage® technologies