

Lenovo® recommends Windows Vista® Business.

**THINKSTATION® WORKSTATIONS S10 & D10**

WORKSTATIONS ENGINEERED FOR POWERFUL IDEAS.



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## THINKSTATION® S10 & D10 WORKSTATIONS

### ROCK-SOLID ENGINEERING.

The Lenovo ThinkStation is engineered exclusively for specialized professionals. Its ground-breaking design ramps up parallel workflows, enabling professional users to innovate faster and reduces the time between an idea and a product.

Equipped with the latest technology from Intel®, the ThinkStation delivers performance well beyond a standard desktop PC. The ThinkStation S10's Intel® Core™2 and ThinkStation D10's dual Intel® Xeon® processors speed through even the toughest workload. These processors nearly double the density of transistors on the chips to offer new levels of energy-efficient performance.

In addition, the ThinkStation is equipped with ThinkVantage® technologies such as Rescue and Recovery® and Client Security Solution to provide the best of data security.



#### QUIET AND RELIABLE

- The ThinkStation is designed to offer you a quieter computing experience: Its rock-solid engineering gives you workstation-class performance at reduced noise levels
- Even when the ThinkStation is under load, it has an acoustic profile similar to a standard PC



#### ENVIRONMENTALLY RESPONSIBLE

- The ThinkStation S10 and ThinkStation D10 contain over 50% recycled plastics, setting the standard for the industry
- All ThinkStation models are RoHS compliant
- Many ThinkStation models are Energy Star 4.0 compliant



#### DESIGNED TO PERFORM

- The ThinkStation's chassis is designed to be user-friendly:
- The ThinkStation's premium cover latch makes the cover easily removable, assisting users to conveniently make upgrades
  - The ThinkStation's illuminated front panel and icons make ports easily locatable, thereby improving connectivity
  - The ThinkStation's ergonomically designed removable handle makes it easy to carry, move and manage
  - Rack implementation is possible both in the ThinkStation S10 and ThinkStation D10

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#### PERFORMANCE YOU NEED

The ThinkStation is a high performance, high quality workstation designed to run graphically and computationally intensive applications for professional users who require a level of performance unattainable with a standard desktop PC.

- Lenovo has partnered with workstation graphics leader NVIDIA® to offer the QUADRO line of workstation graphics adapters
- The ThinkStation supports both Windows Vista® and Windows® XP, giving you the flexibility you need
- The ThinkStation's superior engineering allows simultaneous design and analysis [(Run CAD (design) + CAE (analysis)] parallel
- The ThinkStation S10 and ThinkStation D10 both support RAID configurations without requiring an additional adapter card

#### ISV CERTIFIED

Lenovo is working closely with leading software partners to ensure optimum performance and stability in the demanding applications you use everyday. Independent Software Vendors (ISVs) test system and application compatibility, providing you the assurance of a robust and reliable platform.

#### LEADING INTEL® TECHNOLOGIES

The new performance-driven Intel® Core™ micro architecture combines six key technologies to provide unparalleled efficiency.

- Intel® Wide Dynamic Execution delivers more instructions per clock cycle, enhancing the efficiency of instruction execution
- Intel® Advanced Digital Media Boost enables 128-bit SSE instructions to be completed at a rate of one per clock cycle, effectively doubling the instructions' execution speed as compared to previous generations
- Intel® Advanced Smart Cache is a multi-core optimized cache which increases the probability of each execution core of a multi-core processor accessing data
- Intel® Smart Memory Access contains an important new built-in intelligence to process out-of-order instructions more efficiently
- Intel® Intelligent Power Capability improves energy-efficient performance and reduces noise and energy consumption
- Macro Fusion combines instructions into a single instruction for execution, delivering more efficient processing and faster throughput

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S10

#### Dual-Core

Intel® Core™2 Duo processor E6550 - 2.33GHz, 2MB x2 L2, 1333MHz FSB  
Intel® Core™2 Duo processor E6750 - 2.66GHz, 2MB x2 L2, 1333MHz FSB  
Intel® Core™2 Duo processor E6850 - 3.00GHz, 2MB x2 L2, 1333MHz FSB  
Intel® Core™2 Duo processor E8200 - 2.66GHz, 6MB L2, 1333MHz FSB  
Intel® Core™2 Duo processor E8300 - 2.83GHz, 6MB L2, 1333MHz FSB  
Intel® Core™2 Duo processor E8500 - 3.16GHz, 6MB L2, 1333MHz FSB

#### Quad Core

Intel® Core™2 Quad processor Q6600 - 2.40GHz, 4MB x2 L2, 1066MHz FSB  
Intel® Core™2 Quad processor Q6700 - 2.66GHz, 4MB x2 L2, 1066MHz FSB  
Intel® Core™2 Quad processor Q9300 - 2.50GHz, 6MB L2, 1333MHz FSB  
Intel® Core™2 Quad processor Q9450 - 2.66GHz, 12MB L2, 1333MHz FSB  
Intel® Core™2 Quad processor Q9550 - 2.83GHz, 12MB L2, 1333MHz FSB

#### Extreme

Intel® Core™2 Extreme processor QX6800 - 2.93GHz, 4MBx2 L2, 1066MHz FSB  
Intel® Core™2 Extreme processor QX6850 - 3.00GHz, 4MBx2 L2, 1333MHz FSB  
Intel® Core™2 Extreme processor QX9650 - 3.00GHz, 12MB L2, 1333MHz FSB



D10

#### Dual-Core

Intel® Xeon® processor E5205 - 1.86GHz, 6MB L2, 1066MHz FSB

#### Quad Core

Intel® Xeon® processor E5405 - 2.00GHz, 12MB L2, 1333MHz FSB  
Intel® Xeon® processor E5410 - 2.33GHz, 12MB L2, 1333MHz FSB  
Intel® Xeon® processor E5420 - 2.50GHz, 12MB L2, 1333MHz FSB  
Intel® Xeon® processor E5430 - 2.66GHz, 12MB L2, 1333MHz FSB  
Intel® Xeon® processor E5440 - 2.83GHz, 12MB L2, 1333MHz FSB  
Intel® Xeon® processor E5450 - 2.83GHz, 12MB L2, 1333MHz FSB

#### Extreme

Intel® Xeon® processor X5450 - 3.00GHz, 12MB, 1333MHz FSB  
Intel® Xeon® processor X5450 - 3.00GHz, 12MB, 1333MHz FSB  
Intel® Xeon® processor X5260 - 3.33GHz, 12MB L2, 1333MHz FSB

		S10	D10
Operating Systems	Preloaded	Genuine Windows Vista® Business 32-bit	Genuine Windows Vista® Business 32-bit
	Supported	Genuine Windows Vista® Business 64-bit Genuine Windows Vista® downgrade to Genuine Windows® XP (32 and 64 bit) Red Hat® Enterprise Linux WS 64-bit	Genuine Windows Vista® Business 64-bit Genuine Windows Vista® downgrade to Genuine Windows® XP (32 and 64 bit) Red Hat® Enterprise Linux WS 64-bit
Graphics		NVIDIA® Quadro NV290 (256MB)	NVIDIA® Quadro NV290 (256MB)
		NVIDIA® Quadro FX370 (256MB)	NVIDIA® Quadro FX370 (256MB)
		NVIDIA® Quadro FX570 (256MB)	NVIDIA® Quadro FX570 (256MB)
		NVIDIA® Quadro FX1700 (512MB)	NVIDIA® Quadro FX1700 (512MB)
		NVIDIA® Quadro FX3700 (512MB)	NVIDIA® Quadro FX3700 (512MB)
		NVIDIA® Quadro FX4600 (768MB)	NVIDIA® Quadro FX4600 (768MB)
		Any two of the above Cards are supported.	
Hard Drives		SATA 7200 rpm 160, 250, 500, 750GB, 1TB 1000GB (1TB) SATA - 7200 rpm, 3GB/s, 8MB cache SAS 15K rpm 73, 146, 300GB	SATA 7200 rpm 160, 250, 500, 750GB, 1TB 1000GB (1TB) SATA - 7200 rpm, 3GB/s, 8MB cache SAS 15K rpm 73, 146, 300GB
		* SAS requires adapter card on S10	
Optical Drives		DVD-ROM DVD +/- RW Dual Layer Blu-ray DVD Burner	DVD-ROM DVD +/- RW Dual Layer Blu-ray DVD Burner
		Chassis Form Factor Dimensions (HxWxD) (without handle) Weight (typical) Internal Speaker Rack mounting	Tower 434x210x602mm -55 lbs Standard Via shelf or optional rail kit
Physical		Gen2 PCIe x16 Slots PCIe x8 Slots PCIe x4 Slots PCI-X Slots PCI Slots 3.5" Internal Bays 3.5" External Bays 5.25" External Bays	2 0 1 (x16 mechanical) 2 1 3 1 3
		Motherboard <sup>1</sup>	Form Factor Chipset Ethernet SATA/SAS Connectors PATA Connectors Memory Type Memory Speed DIMM Slots Maximum Memory
		Full ATX Intel® X38 (Express) Broadcom 5755/5754 6/0 None DDR3 ECC PC2-8500 (1067MHz) 4 8GB	Extended ATX Intel® 5400A Intel® 82563EB 5/5 None DDR2 Fully Buffered PC2-5300 (667MHz) 8 64GB
		Power Supply	Wattage Efficiency Rating
		650W 80%+ 100-127/200-240V 8/4A	1000W 80%+ 100-127/200-240V 12/6A
		Environmental	Energy Star 4.0 RoHS Compliant Recycled Plastic Content
		Select models Yes 50% %	Select models Yes 50% %
Rear I/O		PS/2 Parallel Serial Ethernet USB Analog Audio Digital Audio	2 (Mouse/Keyboard) None 1 (second optional) Dual Gigabit (RJ45) 8 5 ports Optical
		2 (Mouse/Keyboard) None 1 (second optional) Dual Gigabit (RJ45) 4 6 ports Coaxial	
		2 1 (6-pin) Analog Audio	2 1 (6-pin) Headphone, Mic in
		2 1 (6-pin) Headphone, Mic in	
		2 1 (6-pin) Headphone, Mic in	
Front I/O		USB IEEE 1394 Analog Audio	2 1 (6-pin) Headphone, Mic in
		2 1 (6-pin) Headphone, Mic in	

<sup>1</sup> Requires 8GB DIMMs.

[lenovo.com/thinkstation](http://lenovo.com/thinkstation)

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