

New ThinkPad T60p notebook — Perfect balance of performance and portability

Overview

The ThinkPad® T60p notebook delivers high performance in a lightweight package. It is an ideal companion or alternative to your workstation for displaying detailed designs, demonstrations, and high-powered presentations.

What's new: New on this system is a 100 GB HDD (7200 rpm) and Intel® Core Duo processor T2600.

Data protection: Integrated fingerprint reader technology on selected systems helps to prevent unauthorized access to your ThinkPad notebook and data.

- Fingerprint reader is integrated into the palm rest.
- Combine the integrated fingerprint reader with IBM Password Manager and the Embedded Security Subsystem for strong security measures that are easy to follow.
- The fingerprint reader offers a more convenient solution — authenticate at system startup and log into Windows™ with a swipe of your finger.

The Active Protection system, a ThinkVantage™ technology, helps protect your HDD from some damage that could be caused by shock. A system board-mounted sensor continuously monitors your ThinkPad notebook for sudden movement and temporarily parks the HDD read/write head when a fall or similar event is predicted.

Latest technology

- Intel Centrino® Duo mobile technology on this system:
 - Intel Core Duo processor family
 - Intel PRO/Wireless family
 - Intel 945PM chipset family
- ATI Mobility FireGL V5200 (256 MB) graphics chipset for clear, crisp 3D images with full OpenGL support. OpenGL is a standard for 3D graphics.

- UltraNav dual-pointing system, featuring TrackPoint® and customized touchpad for the ultimate in pointing flexibility.
- UltraConnect antenna to help optimize frequency coverage and performance for improved wireless LAN connectivity around the world.

Excellent features and options

- Intel PRO/Wireless 3945ABG (Intel 11a/b/g)⁸ on selected systems
- ThinkPad 11a/b/g⁸ on selected systems
- Access Connections to help manage wired and wireless communications
- Rescue and Recovery™
- 358.1 mm (14.1 in) TFT display with 1400 x 1050 resolution or
- 381.0 mm (15.0 in) TFT display with 1600 x 1200 resolution Flexview display
- Windows XP Professional with selected applications (Note: Included software may differ from its retail version, if available, and may not include user manuals or all program functionality. License agreements may apply.)
- Ultrabay™ Slim bay for fast and easy hot- and warm-swapping of selected options

Long battery operation: Up to 4.9 hours⁹ with the nine-cell system battery, and up to 6.8 hours with the nine-cell system battery and Ultrabay Slim battery options.

Light and portable: The ThinkPad T60p notebook is approximately 31 mm to 36 mm (1.2 to 1.4 in) thin¹⁰ with optimal travel weight starting at 2.2 kg (4.9 lb)¹¹ with travel bezel and nine-cell battery.

The titanium and magnesium composite covers give added strength.

At a glance

The ThinkPad T60p notebook features:

- Intel Core Duo processor T2600 (2.16 GHz¹, 2 MB L2 cache, and 667 MHz front-side bus [FSB])
- Sleek profile and light weight
- 667 MHz FSB with 667 MHz double data rate (DDR2) SO DIMM memory
- 1 GB of memory standard expandable to 4.0 GB²
- Rescue and Recovery
- UltraNav dual-pointing system with TrackPoint and customized touchpad
- ThinkPad HDD Shock Absorber™
- 100 GB³ high-speed (HS) HDD at 7200 rpm
- Multi-Burner DVD Recordable 8x max, Ultrabay Slim drive⁴⁵ or CD-RW/DVD-ROM Combo drive⁴⁵
- Standard integrated communications of V.90⁶ modem (V.92⁷-designed)
- 1 Gigabit Ethernet, and Embedded Security Subsystem 2.0; Trusted Computing Group (TCG)-compliant
- Bluetooth wireless technology on selected systems
- Three-year limited warranty; one-year limited warranty on battery
- IBM Support Center: 800-426-7378

Robust system manageability: The ThinkPad T60p notebook features support for IBM Director Agent and is designed to the PXE 2.1 manageability requirements for mobile systems.

Planned availability date

February 14, 2006

This announcement is provided for your information only. For additional information, contact your sales representative, call 800-426-4968, or visit <http://www.thinkpad.com>.

Description

ThinkPad T60p features

Data protection: Integrated fingerprint reader technology from ThinkVantage technologies on selected systems helps protect access to your ThinkPad notebook and data.

- Because fingerprints are unique, using them along with other security measures can provide strong security.
- Fingerprint reader is built right into the palm rest area of the computer. When used with IBM Password Manager and the Embedded Security subsystem, it enables you to pass your finger over the reader instead of typing passwords, or combine it with passwords.
- Combine the integrated fingerprint reader with IBM Password Manager and the Embedded Security Subsystem for strong security measures that are easy to follow. Security software is preloaded for an integrated solution out of the box.
- Administrators can implement strong security policies, and users can meet ongoing password requirements easily.

Leadership design

- Shock absorber to help prevent some HDD crashes that can occur when the system is placed on a hard surface while in use
- UltraConnect antenna to help optimize frequency coverage and performance for improved wireless LAN connectivity around the world; supports 2.4 GHz frequency band for 802.11b networks and four sub-bands in the 5 GHz frequency band to meet unique country spectrum requirements for 802.11a networks
- Integrated Bluetooth wireless technology with Bluetooth antenna on selected systems
- ATI Mobility FireGL V5200 (256 MB) graphics chipset for clear, crisp 3D images
- Access Connections software to easily manage wired and wireless connections
- Disk-to-disk recovery of preloaded software
- 667 MHz FSB
- 667 MHz DDR2 SO DIMM memory
- Embedded Security Subsystem 2.0 (TCG-compliant)
- Intel PRO/Wireless 3945ABG Wi-Fi wireless (based on IEEE 802.11a/b/g) on selected systems

Wi-Fi wireless lets you connect to a LAN without wires or cables. To connect to the Internet, the Cisco AP1200, or similar device, and an Internet connection are required. This product has been tested and certified to be interoperable by the Wireless Ethernet Compatibility Alliance and is authorized to carry the Wi-Fi logo.

- 56K V.90 modem (V.92-designed) and 1 Gigabit Ethernet

ImageUltra™ services: All ThinkPad T60p notebooks are enabled for ImageUltra.

For more information, visit

<http://www.pc.ibm.com/us/accessories/services/imageultra.html>

Processor technology: The new ThinkPad T60p notebook computer features an Intel Core Duo processor T2600 and floating-point decimal for exceptional performance. All models include enhanced Intel SpeedStep technology with two performance modes:

- Maximum performance mode for top performance while connected to ac external power using the ac power adapter.
- Battery-optimized performance mode for balance between performance and battery life when operating on battery power. In this mode the speed is reduced to conserve battery power.

Superior security and manageability

- Designed to the PXE 2.1 manageability requirements for mobile systems
- Support for IBM Director Agent, a comprehensive set of superior, standards-based PC hardware manageability tools that work with and complement existing systems management products
- Compliant with the industry-standard Common Information Model
- Local and remote asset management, and early detection of HDD failure via IBM Director Agent
- Remote setup and low-level maintenance via Remote Deployment Manager™
- Asset and data security via multiple passwords and locks

Rescue and Recovery, an enhanced support environment accessible via the blue Access program button, enables self-help and self-recovery, including:

- Improved features and performance of Rapid Restore™
- Broader recovery and diagnostic tools available even when your primary operating system is failing:
 - Rescue and restore your files, folders, or backups using Rapid Restore.
 - Restore the HDD to the same contents it held when the computer was manufactured.
 - Configure your system settings and passwords.
 - Communicate using the Internet and link to the IBM support site (Internet access required, not included).
 - Troubleshoot by using diagnostics.

Operating system: Microsoft™ Windows XP Professional with selected applications.

LCD TFT display: Systems have a 358.1 mm (14.1 in) TFT display with resolution of 1400 x 1050, or 381.0 mm (15.0 in) TFT display with 1600 x 1200 resolution Flexview display.

All displays are measured diagonally.

Video modes

ATI Mobility FireGL V5200 (256 MB) with 1400 x 1050 resolution TFT

Resolution	TFT LCD Color depth		
640 x 480	256,	64K,	16M
800 x 600	256,	64K,	16M
1024 x 768	256,	64K,	16M
1280 x 1024	256,	64K,	16M
1600 x 1200	256	64K	16M
2048 x 1536	256(12), 64K(12), 16M(12)		

Resolution	Color	External monitor Refresh rate (Hz)										
640 x 480	256	60,	72,	75,	85,	90,	100,	120,	160			
640 x 480	64K	60,	72,	75,	85,	90,	100,	120,	160			
640 x 480	16M	60,	72,	75,	85,	90,	100,	120,	160			
800 x 600	256	60,	70,	72,	75,	85,	90,	100,	120,	160		
800 x 600	64K	60,	70,	72,	75,	85,	90,	100,	120,	160		
800 x 600	16M	60,	70,	72,	75,	85,	90,	100,	120,	160		
1024 x 768	256	60,	70,	72,	75,	85,	90,	100,	120,	150,	160	
1024 x 768	64K	60,	70,	72,	75,	85,	90,	100,	120,	150,	160	
1024 x 768	16M	60,	70,	72,	75,	85,	90,	100,	120,	150,	160	
1280 x 1024	256	60,	70,	75,	85,	90,	100,	120,	160			
1280 x 1024	64K	60,	70,	75,	85,	90,	100,	120,	160			
1280 x 1024	16M	60,	70,	75,	85,	90,	100,	120,	160			
1600 x 1200	256	60,	75,	85,	100,	120						
1600 x 1200	64K	60,	75,	85,	100,	120						
1600 x 1200	16M	60,	75,	85,	100,	120						
2048 x 1536	256	60,	66,	70,	75							
2048 x 1536	64K	60,	66,	70,	75							
2048 x 1536	16M	60,	66,	70,	75							

ATI Mobility FireGL V5200 (256 MB) with 1600 x 1200 resolution TFT Flexview display with wide viewing angle and high density

Resolution	TFT LCD Color depth		
640 x 480	256,	64K,	16M
800 x 600	256,	64K,	16M
1024 x 768	256,	64K,	16M
1280 x 1024	256,	64K,	16M
1600 x 1200	256	64K	16M
2048 x 1536	256(12), 64K(12), 16M(12)		

Resolution	Color	External monitor Refresh rate (Hz)										
640 x 480	256	60,	72,	75,	85,	90,	100,	120,	160			
640 x 480	64K	60,	72,	75,	85,	90,	100,	120,	160			
640 x 480	16M	60,	72,	75,	85,	90,	100,	120,	160			
800 x 600	256	60,	70,	72,	75,	85,	90,	100,	120,	160		
800 x 600	64K	60,	70,	72,	75,	85,	90,	100,	120,	160		
800 x 600	16M	60,	70,	72,	75,	85,	90,	100,	120,	160		
1024 x 768	256	60,	70,	72,	75,	85,	90,	100,	120,	150,	160	
1024 x 768	64K	60,	70,	72,	75,	85,	90,	100,	120,	150,	160	
1024 x 768	16M	60,	70,	72,	75,	85,	90,	100,	120,	150,	160	
1280 x 1024	256	60,	70,	75,	85,	90,	100,	120,	160			
1280 x 1024	64K	60,	70,	75,	85,	90,	100,	120,	160			
1280 x 1024	16M	60,	70,	75,	85,	90,	100,	120,	160			
1600 x 1200	256	60,	75,	85,	100,	120						
1600 x 1200	64K	60,	75,	85,	100,	120						
1600 x 1200	16M	60,	75,	85,	100,	120						
2048 x 1536	256	60,	66,	70,	75							
2048 x 1536	64K	60,	66,	70,	75							
2048 x 1536	16M	60,	66,	70,	75							

Keyboard with TrackPoint and enhanced features: The keyboard has the familiar layout of a ThinkPad notebook with function keys that allow you to quickly access system functions such as power management control.

- UltraNav combines the advantages of the TrackPoint device, a center-scrolling button, and a touchpad.
- ThinkLight® makes it easy to view your keyboard in low-light conditions.

- The ThinkPad button provides one-button access to critical information. Choose from three different caps for the TrackPoint.
- The TrackPoint with enhanced features includes the Press-to-Select and Release-to-Select function.

Just tap the TrackPoint to speed icon launches and help reduce keystrokes. The programmable center button enables fast scrolling of Web sites and documents or fast panning across wide spreadsheets. Switch to the innovative magnifying glass feature to enlarge screen views in any application.

Memory: The T60p systems have 1 GB SDRAM 667 MHz SO DIMM memory standard, expandable to 4 GB. These systems can be configured for up to 4 GB of addressable memory. Memory options up to 2 GB DDR2 SDRAM 533 SO DIMMs can be added in each of the two slots for memory expansion.

To achieve the maximum 4 GB to which memory can be expanded, you need to replace the 1 GB card with a 2 GB card and add another 2 GB card in the extra slot.

Important information about memory: On the T60 and T60p systems, even though it is possible to physically install 4 GB of memory, the actual amount of memory addressable by an operating system will be limited to 3 GB. This limitation comes from the current 32-bit PC architecture.

Recommended for memory expansion are 2 GB PC2-4200 DDR2 SDRAM 533 MHz SO DIMM or 256 MB, 512 MB, and 1 GB PC2-5300 DDR2 SDRAM 667 MHz SO DIMM.

If PC2-4200 DDR2 SDRAM 533 MHz SO DIMM and PC2-5300 DDR2 SDRAM 667 MHz SO DIMM are used at the same time, actual memory access speed is aligned to 533 MHz.

PC card: One Type II slot and one ExpressCard/54 slot.

Storage: The customer-removable HDD is a 100 GB high-speed HDD at 7200 rpm.

A second HDD in the Ultrabay Slim expands storage. The second HDD option, which also requires an optional adapter, can be used with all ThinkPad T60p models.

Drives: Multi-Burner DVD Recordable 8x max Ultrabay Slim drive or CD-RW/DVD-ROM Combo drive.

Audio: Full-duplex audio on the system board and the integrated microphone allow voice annotation and audio. The system is equipped with audio in/out jacks for stereo speakers, headphone, or external microphone. The system supports Microsoft DirectSound applications.

Video: Digital visual interface for digital displays is supported through the optional ThinkPad Advanced Dock or ThinkPad Advanced Mini Dock.

Infrared (IR): The system has one fast IR transceiver (up to 4 Mbps) for wireless file and data transfer and printing. The ThinkPad T60p notebook is designed for compliance with the Infrared Data Association (IrDA) IR data link specification V1.1.

Other features: The ThinkPad T60p systems include these ports:

- External display
- Built-in RJ-11 and RJ-45 connectors for telephony and LAN connections

- IR
- Microphone
- Headphone
- Three USB ports

A PS/2® or serial port is not included, but both can be obtained through the optional ThinkPad Advanced Dock or ThinkPad Advanced Mini Dock.

The USB 2.0 ports, which connect external drives and other devices, are supported with Windows XP Professional.

The 168-pin connector supports these optional docking solutions:

- ThinkPad Advanced Mini-Dock for port replication, additional USB capability, and security
- ThinkPad Advanced Dock for a more advanced docking solution

AC adapter: The ac adapter is an ac-to-dc converter that supplies the necessary power to the computer. The ac adapter also charges the battery pack when it is installed in the computer.

Li-Ion battery pack

- A nine-cell Li-Ion battery pack is shipped with the system. This same battery is also available as an optional feature.
- A different Li-Ion battery pack fits into the Ultrabay Slim so that two batteries can be installed to increase battery operating time.
- The battery pack is an internal power source to the computer when the ac adapter is not available. The rechargeable battery pack is charged using the ac adapter with the system.
- You can determine how much battery power remains by using the Fuel-Gauge ThinkPad utility program. This displays the percent charge remaining, whether one or two batteries are in the system.

Approximate operation and charging hours:

- Power off/suspend charging¹³: 4.5 hr
- Charging during operation¹³: 4.5 to 6.0 hr
- Battery operation:
 - Nine-cell battery: Up to 4.9 hr
 - Nine-cell plus bay battery: Up to 6.8 hr

Features available for this family of ThinkPad T60 notebooks: Certain product family features are sometimes limited to select models that may not be available in all countries. Refer to the models and features available in your country.¹⁴

- Intel processors are Intel Core Solo processor T1300 (1.66 GHz), Intel Core Duo Processor T2300 (1.66 GHz), Intel Core Duo Processor T2400 (1.83 GHz), Intel Core Duo Processor T2500 (2.0 GHz), and Intel Core Duo Processor T2600 (2.16 GHz).
- HDDs are 40, 60, and 100 GB at 5400 rpm. Also 100 GB at 7200 rpm on selected models.
- System memory is 256 MB, 512 MB, or 1 GB.
- Optical drives are CD-RW/DVD-ROM (Combo) and DVD recordable (Multi-Burner).
- Bluetooth wireless technology.

- Graphics chipsets are ATI mobility Radeon X1300 (64 MB), ATI mobility Radeon X1400 (128 MB), and ATI Mobility FireGL V5200 (256 MB) graphics chipset.
- Intel Graphics Media Accelerator 950 chipset.
- Wireless features are Intel PRO/Wireless 3945ABG (Intel 11 a/b/g) and ThinkPad 11 a/b/g.
- System chipsets are Intel 945PM (T60 and T60p Discrete models) and Intel 945GM (T60 Integrated models).
- Fingerprint reader on selected models.
- Displays are 358.1-mm (14.1-in) TFT display with 1024 x 768 or 1400 x 1050 resolution or 381.0 mm (15.0 in) TFT display with resolutions of 1024 x 768, 1400 x 1050 Flexview display with wide viewing angle and high density, and 1600 x 1200 Flexview display with wide viewing angle and high density.
- 6-cell or 9-cell battery.
- 65 watt or 90 watt ac adapter depending on model.
- Microsoft Windows XP Professional operating system and selected preloaded applications.

Software

Non-Lenovo™ software: The non-Lenovo software programs listed in this section may be licensed to you under the non-Lenovo manufacturer's, supplier's, or publisher's terms and conditions. The non-Lenovo manufacturers, suppliers, or publishers are responsible for providing any service or support associated with these programs. The descriptions of these programs were obtained from information made available by these companies to the general public. Lenovo does not warrant these products. Some software may differ from its separately available version (if available), and may not include user manuals or all program function.

Software available for download from the Web

- IBM Director Agent

http://www.pc.ibm.com/us/eserver/xseries/systems_management/dwnl.html

- Remote Deployment Manager

http://www.pc.ibm.com/us/eserver/xseries/systems_management/dwnl.html

Software that may be included or preloaded on the system

Standard preload for T60p systems

- Microsoft Windows XP Professional
- InterVideo WinDVD Player — only for systems with DVD drive or DVD/CD-RW
- InterVideo WinDVD Creator — only for systems with DVD-RW/CD-RW drive
- ThinkVantage Productivity Center
- ThinkVantage System Update
- PC-Doctor diagnostics
- Think Multimedia — only for systems with DVD-RW/CD-RW drive
- ThinkVantage Access Connections
- Adobe Acrobat Reader

- ThinkVantage Rescue and Recovery 3.0
- Symantec Client Security Software (OEM Edition) with 90 days of virus definition updates
- ThinkVantage Client Security Software
- ThinkVantage Fingerprint software on selected systems

Warranty information

For a copy of applicable product warranties, contact your authorized Lenovo Reseller or Lenovo representative. Lenovo makes no representation or warranty regarding third-party products or services.

Telephone support may be subject to additional charges, even during the limited warranty period. For Lenovo machines with on-site labor, Lenovo will attempt to diagnose and resolve the problem remotely before sending a technician. For Lenovo machines with Courier or Depot service, Lenovo will attempt to diagnose and resolve the problem remotely before sending a courier.

All offers are subject to availability. Lenovo reserves the right to alter product offerings and specifications at any time without notice. Lenovo is not responsible for photographic or typographic errors.

Accessibility by people with disabilities

The following features support use by people with disabilities:

- Controls and latches operable with one hand and minimal dexterity
- Keys discernible by touch without activating them
- Ports and connectors for connection of industry-standard devices

Reference information

- ¹ Power management reduces processor speed when in battery mode.
- ² Recognizes up to 4 GB of addressable memory in these models. Memory options up to 2 GB DDR SO DIMMs each can be added in the two slots for memory expansion.
- ³ GB equals one billion bytes and TB equals one trillion bytes when referring to HDD. Accessible capacity is less. Up to 4 GB is used in the service partition.
- ⁴ CD and DVD drive rates are variable and are often less than the maximum possible. Often, just the maximum rate is displayed.
- ⁵ For combination drives, maximum speeds are given in the following order: CD-W, CD-RW, CD-R, DVD-R.
- ⁶ The V.90 modem can receive data at up to 56 Kbps from a compatible service provider and transmit data at up to 31.2 Kbps. Public networks currently limit maximum download speeds to about 53 Kbps. Actual speeds depend on many factors and are often less than the maximum possible.
- ⁷ Public network download speeds are limited to 53 Kbps. Upload speeds are limited to 48 Kbps for V.92 modems. Actual speeds depend on many factors and are often less than the maximum possible. V.92 functions and speeds require a compatible phone line and server equipment, and download of V.92 support device driver when available. Check with your telephone and Internet service providers for availability.
- ⁸ 11a, 11b, and 11g wireless are based on IEEE 802.11a, 802.11b, and 802.11g. An adapter with 11 a/b or 11a/b/g can communicate in any of these formats; the actual connection is based on the access point to which it connects.
- ⁹ These model numbers achieved the Ziff Davis Media Inc.'s Business Winstone 2002 BatteryMark™ V1.0 battery

rundown time of at least the time shown. This test was performed without independent verification by the VeriTest testing division of Lionbridge Technologies, Inc. nor Ziff Davis Media Inc.; neither Ziff Davis Media Inc. nor VeriTest makes any representations or warranties as to these test results. For a description of the environment under which the test was performed, visit

<http://www.ibm.com/pc/ww/thinkpad/batterylife>

Battery life (and recharge times) varies based on many factors, including screen brightness, applications, features, power management, battery conditioning, and other customer preferences.

- ¹⁰ Thickness may vary at certain points on the system.
- ¹¹ Actual weight may vary depending on vendor components, manufacturing process, or options. Weight includes battery and optional travel bezel instead of the standard optical drive in the Ultrabay Slim.
- ¹² Supported in panning mode.
- ¹³ Recharge time will also vary.
- ¹⁴ Refer to the models and features available in your country.

Trademarks

Remote Deployment Manager is a trademark of International Business Machines Corporation in the United States or other countries or both.

PS/2, xSeries, and eServer are registered trademarks of International Business Machines Corporation in the United States or other countries or both.

Intel and Intel Centrino are registered trademarks of Intel Corporation.

Windows and Microsoft are trademarks of Microsoft Corporation.

ThinkVantage, Rescue and Recovery, Ultrabay, ThinkPad HDD Shock Absorber, ImageUltra, Rapid Restore, and Lenovo are trademarks of Lenovo in the United States, other countries, or both.

ThinkPad, TrackPoint, and ThinkLight are registered trademarks of Lenovo in the United States, other countries, or both.

Other company, product, and service names may be trademarks or service marks of others.

United States Announcement Supplemental Information

January 31, 2006

Optional features

For the latest information on options available for the ThinkPad® T60p models and other ThinkPad notebooks, visit

<http://www.pc.ibm.com/us/accessories/thinkpad/index.html>

Services

IBM Integrated Technology Services

IBM services include business consulting, outsourcing, hosting services, applications, and other technology management.

These services help you learn about, plan, install, manage, or optimize your IT infrastructure to be an On Demand Business. They can help you integrate your high-speed networks, storage systems, application servers, wireless protocols, and an array of platforms, middleware, and communications software for Lenovo™ and many non-Lenovo offerings.

For details on available services, contact your IBM representative or visit

<http://www.ibm.com/services/>

For details on available IBM Business Continuity and Recovery Services, contact your IBM representative or visit

<http://www.ibm.com/services/continuity>

For details on education offerings related to specific products, visit

<http://www.ibm.com/services/learning/index.html>

Select your country, and then select the product as the category.

Technical information

Specified operating environment

Physical specifications

Note: Actual specifications and weights may vary based on features, vendor components, or manufacturing processes. All weights and dimensions are approximate.

For systems with 358.1 mm (14.1 in) TFT display:

- Width: 311 mm (12.2 in)
- Depth: 255 mm (10.0 in)
- Height: 26.6 to 31 mm (1.0 to 1.2 in)
- Weight:
 - With travel bezel: 2.17 kg (4.8 lb)

- Configured system: 2.34 kg (5.2 lb)

For systems with 381.0 mm (15.0 in) TFT display:

- Width: 329 mm (13.0 in)
- Depth: 268 mm (10.6 in)
- Height: 31 to 36 mm (1.2 to 1.4 in)
- Weight:
 - With travel bezel: 2.54 kg (5.6 lb)
 - Configured system: 2.71 kg (6.0 lb)

Accessories

- Li-Ion battery pack: 6 cell 340 g (0.75 lb)
- Li-Ion battery pack: 9 cell 490 g (1.08 lb)
- 90W AC adapter (two-pin or three-pin): 360 g (0.795 lb)
- Power cord for ac adapter: 90 g (0.19 lb)
- DVD drive: 345 g (0.76 lb)

Electrical specifications

- Universal ac adapter (90 W-2pin):
 - Input: 100/240 V ac, 2.5A (max), 50/60 Hz
 - Output: 20 V dc, 4.5 A
- Universal ac adapter (90 W-3pin):
 - Input: 100/240 V ac, 1.7A (max), 50/60 Hz
 - Output: 20 V dc, 4.5 A
- Li-Ion battery packs:
 - 6 cell: 10.8 V, 5.2 Ah
 - 9 cell: 10.8 V, 7.8 Ah

Heat dissipation: 222/307 Btu/hr maximum

Heat emissions: 65/90 watts maximum

Air temperature for shipping and storage: -20° to 60°C (-4° to 140°F)

Acoustic noise level: Category 3D (office environment)

- Low cooling fan speed:
 - Sound power level: 3.7 bels (idling), 4.0 bels (HDD seeking)
 - Sound pressure level at the operator position: 31 dB (idling), 34 dB (HDD seeking)
- Middle cooling fan speed:
 - Sound power level: 3.9 bels (idling), 4.0 bels (HDD seeking)
 - Sound pressure level at the operator position: 33 dB (idling), 34 dB (HDD seeking)
- High cooling fan speed:
 - Sound power level: 4.0 bels (idling), 4.1 bels (HDD seeking)
 - Sound pressure level at the operator position: 36 dB (idling), 37 dB (HDD seeking)

Note: All measurements are made in accordance with ISO 7779 and reported in conformance with ISO 9296.

This announcement is provided for your information only.

Operating environment: ThinkPad computers are designed, built, and tested for high quality and reliability. When used properly in standard business environments, a ThinkPad system should be a reliable computing asset for many years. Harsh environments and abuse can damage ThinkPads since they are not intended to withstand extreme temperatures, dust, shock, or other severe physical environments. ThinkPad systems should not be used in unsuitable environments. For example, a ThinkPad system should not be used in nonstationary environments, such as in-vehicle installations, without additional casing or shock dissipation. Lenovo warrants that the ThinkPad notebook will conform to its Official Published Specifications when used in a suitable physical operating environment.

Air temperature

- 0 to 8,000 ft:
 - Operating: 5° to 35°C (41° to 95°F)
 - System off: 5° to 43°C (41° to 110°F)
 - Storage/shipment: -20° to 60°C (-4° to 140°F)
 - Wet bulb (maximum): 29.4°C (85°F)
- 8,000 to 10,000 ft:
 - Operating: 5° to 31.3°C (41° to 88°F)
 - System off: 5° to 43°C (41° to 110°F)
 - Storage/shipment: -20° to 60°C (-4° to 140°F)
 - Wet bulb (maximum): 25.7°C (78°F)

Note: The maximum temperature when the system is on is linearly decreased from 8,000 to 10,000 ft.

Relative humidity

- Operating: 8% to 95%
- Storage/shipment: 5% to 95%

Altitude: 10,000 ft maximum (3,048 m)

Agency approvals: System unit approvals

- FCC Part 15 Class-B (Doc)
- VCCI Class 2
- UL-60950
- C-UL
- CCC (for China)
- BSMI (for Taiwan)
- SMA 3548 (Australia and New Zealand)
- MPR-II (Sweden)
- CE Mark
- CB Report
- NOM (Mexico)
- MIC (Korea)

Software requirements: The following operating systems support the ThinkPad T60 and T60p computer:

- Windows™ 2000 Professional (SP4¹⁵) with USB 2.0 support
- Windows XP Professional (SP1a¹⁵ or SP2) with USB 2.0 support
- Windows XP Home (SP1a¹⁵ or SP2) with USB 2.0 support

¹⁵ Supported only when Core Multi-Processing is disabled.

For information about support for these operating systems, visit

<http://www.lenovo.com/think/support>

Note: Previous versions of these operating systems are not supported.

For a list of completed Linux™ certifications, visit

<http://www.lenovo.com/think/support/site.wss/MIGR-48NT8D.html>

Operating systems other than those preinstalled on the systems may not provide full-feature function. To view considerations or service hints and tips by operating system, visit

<http://www.lenovo.com/think/support>

- In the middle of the page, in the Quick path to a product field, enter your system's four-digit machine type and three-digit model number, such as 2007-123.
- On the left side of the page, click Hints and Tips.
- In middle of the page, select a category such as Windows 2000 to see the list of considerations or hints and tips for your machine type.

Compatibility and supported products

Contact your ThinkPad representative for a list of supported features and options.

PC card: The ThinkPad T60p notebook conforms to the PC Card Standard Release 8. The PC Card Standard encompasses both the former 16-bit Release 2.1 card standard and the 32-bit CardBus card. Other PC card adapters that comply with the PC Card Standard may also function, but have not been tested by Lenovo.

Vendor software compatibility: Lenovo tests a large number of commonly used and available applications for compatibility with its ThinkPad systems using supporting operating systems and configurations. In general, you can expect that most vendor applications designed to run on supported operating systems and Intel-compatible system architectures should be compatible with a ThinkPad system. Some configurations, however, may not be compatible.

Lenovo does not warrant or support vendor software products, nor guarantee compatibility of those products with Lenovo systems. Refer to the applicable warranty and license terms provided by the respective vendors.

ThinkPad T60p systems contain BIOS in their flash ROM and a GUI to set up the system and power-management features for Windows users. BIOS provides the hardware instructions and interfaces designed to support the standard features of the ThinkPad T60p computer and to maintain compatibility with many software programs currently operating under Windows XP.

Limitations: For a list of tips about running various versions of operating systems, visit

<http://www.lenovo.com/think/support>

General

- ThinkPad 11a/b/g Wi-Fi wireless LAN PCI Express Mini Card (ThinkPad 11a/b/g) and Intel PRO/Wireless 3945ABG support ad hoc wireless connection mode for 2.4 GHz 802.11b connections. ThinkPad 11a/b/g and Intel PRO/Wireless 3945ABG wireless adapters support ad hoc wireless connections for 2.4 GHz 802.11g connections at 802.11b data rates (up to 11 Mbps) as defined in the IEEE 802.11g standard.
- Do not use the RJ-11, RJ-45, or VGA port when the computer is docked on ThinkPad Advanced Dock, ThinkPad Advanced Mini Dock, or ThinkPad Essential Port Replicator.

- Always place the RJ-11 cover on its connector.
- Selected systems are wireless upgradable with wireless LAN PCI Express Mini Card options sold by Lenovo. Systems are not wireless upgradable in all countries.
- Systems with the wireless LAN product permit legal operation worldwide in regions in which it is approved. This product has been tested and certified to be interoperable by the Wireless Ethernet Compatibility Alliance and is authorized to carry the Wi-Fi brand.
- Using Wi-Fi wireless and optional Bluetooth products together may impact the performance of both.
- Support for a DVI monitor is through the ThinkPad docking options and is limited to a resolution of 1600 x 1200, 60 Hz mode.
- The Active Protection System™ is automatically disabled while the computer is:
 - Loading the operating system
 - In standby or hibernation mode
 - Resuming from normal operation after being in standby or hibernation
 - Being shut down

On the T60 and T60p systems, even though it is possible to physically install 4 GB of memory, the actual amount of memory addressable by an operating system will be limited to 3 GB. This limitation comes from the current 32-bit PC architecture.

Planning information

Cable orders: All required cables are included in the shipment group.

Installability: ThinkPad notebook systems require approximately 20 minutes for installation. Installation includes unpacking, setting up, and powering on the system. Additional time is required to install optional memory and other features.

Packaging

Shipment group

- System unit with display and U.S. English keyboard
- 1 GB of memory
- Appropriate optical drive installed
- Modem and Ethernet
- Embedded Security Subsystem 2.0
- Fingerprint reader on selected systems
- Wi-Fi wireless card
- Bluetooth wireless technology card and antenna
- Windows XP Professional operating system
- Appropriate preloaded software
- AC adapter
- Rechargeable battery pack (Li-Ion)
- Power cord
- TrackPoint® caps
- ThinkPad T Series Service and Troubleshooting Guide

- ThinkPad T Series Setup Guide
- License agreement and supporting documentation
- Lotus SmartSuite® Millennium license of use
- Lotus Notes® stand-alone client license of use
- Envelope Group BM (Miscellaneous Envelope): Brochure for optional third-party insurance offering

Supplies: Not applicable

Security, auditability, and control

Passwords: These password protection mechanisms are available:

- Power-on passwords to help protect the system from unauthorized use
- Supervisor password for use by a system administrator
- HDD password to help protect data on the removable HDD

In addition, an optional locking device in the Lenovo security slot provides physical security.

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communications facilities.

Terms and conditions

IBM Global Financing: Yes

To obtain copies of the Lenovo Statement of Limited Warranty, contact your reseller or Lenovo.

In the United States, call 800-426-7378 or write to:

Warranty Information
P.O. Box 12195
Research Triangle Park, NC 27709
Attn: Dept ZPYA/B676

Warranty period

- System hardware — Three years on parts and labor
- System battery — One year

Optional Lenovo features initially installed in a Lenovo system carry the same warranty period as the system. If installed after the initial system installation, they carry the balance of the system warranty or the optional feature warranty, whichever is greater.

Warranty service: If required, your service provider provides repair or exchange service depending on the type of warranty service specified below for the machine. A service technician will attempt to resolve your problem over the telephone. You must follow the problem determination and resolution procedures. Scheduling of service will depend upon the time of your call and is subject to parts availability. Service levels are response time objectives and are not guaranteed. The specified level of warranty service may not be available in all worldwide locations. Additional charges may apply outside your service provider's normal service area. Contact your local service provider representative or your reseller for country and location specific information.

Customer Replaceable Unit (CRU) Service: Lenovo will ship CRUs to you for you to install. Tier 1 CRUs are easy to install whereas Tier 2 CRUs require some technical skill and tools. CRU information and replacement instructions are shipped with your machine and are available from Lenovo at any time on your request. You may request that a service provider install CRUs, at no additional charge, under the type of warranty service designated for your machine. Lenovo specifies in the materials shipped with a replacement CRU whether a defective CRU must be returned. When return is required, (1) return instructions and a container are shipped with the replacement CRU, and (2) you may be charged for the replacement CRU if Lenovo does not receive the defective CRU within 30 days of your receipt of the replacement.

Courier or Depot Service: You will disconnect the failing machine for collection arranged by your service provider. A shipping container will be provided to you for you to return your machine to a designated service center. A courier will pick up your machine and deliver it to the designated service center. Following its repair or exchange, the service center will arrange the return delivery of the machine to your location. You are responsible for its installation and verification.

Customer Carry-in or Mail-in Service: You will deliver or mail as your service provider specifies (prepaid unless specified otherwise) the failing machine suitably packaged to a designated location. After the machine has been repaired or exchanged, it will be made available for your collection or, for Mail-in Service, the machine will be returned to you at Lenovo's expense, unless your service provider specifies otherwise. You are responsible for the subsequent installation and verification of the machine.

This type of service is called EasyServ in the U.S. and Canada.

Call 800-426-7378 to assist with problem isolation for hardware to determine if warranty service is required. Telephone support may be subject to additional charges, even during the limited warranty period. If a hardware problem is identified, the Customer Support Center will either initiate the shipment of a CRU or arrange for a courier to pick up the system for overnight delivery (where available) to the repair location. Most repairs should be made within 48 hours after the system is received at the repair location (actual repair time may vary). Keep the original shipping carton for shipping to the repair location. If the original shipping carton is not available, the courier will deliver a shipping carton and return to pick up the system for delivery to the repair location.

International Warranty Service (IWS): IWS is available during the warranty period to customers who travel or relocate to countries where their computer is sold and serviced by a service provider authorized to perform warranty service. Eligible Lenovo computers are identified by their four-digit machine type.

You can obtain IWS through the method of service, such as CRU, depot, carry-in, or on-site, provided in the servicing country. Service methods and procedures vary by country, and some service or parts may not be available in all countries. Service centers in certain countries may not be able to service all models of a particular machine type. In addition, some countries may have fees and restrictions that apply at the time of service.

Note: Due to the Earth's magnetic field, cathode ray tube (CRT) monitors are manufactured to work in northern,

southern, and equatorial regions of the earth and may not produce a satisfactory image when moved between them. Any required adjustment (if possible) is not covered under IWS and may be subject to a chargeable action. The magnetic field does not affect flat panel LCD monitors and ThinkPad LCD displays.

Licensing: Programs included with this product are licensed under the terms and conditions of the License Agreements that are shipped with the system.

ThinkPlus™ Services

Warranty and Maintenance Options: The announced products may be eligible for ThinkPlus Maintenance Services, convenient prepackaged offerings for warranty service upgrades and maintenance services.

Installation Services: The announced products may be eligible for ThinkPlus Installation Services, convenient prepackaged offerings for installation services.

Refer to the **Prices** section for information on the availability of ThinkPlus Services.

Field-installable features: Yes

Model conversions: No

Machine installation: Customer setup. Customers are responsible for installation according to the instructions Lenovo provides with the machine.

Graduated Program License Charges apply: No. This product does not contain Licensed Internal Code or Licensed Machine Code.

Prices

Product charges

Description	Order number	Machine type/ model	List price ¹⁶
ThinkPad T60p (100.0 GB/7200 rpm, Intel Core Duo processor T2600, 1 GB, CD-RW/DVD-ROM Combo, 14.1-in TFT 1400 X 1050, Intel 945PM, ATI Mobility FireGL V5200 256 MB, 9 Cell battery, Intel PRO/Wireless 3945ABG, Bluetooth wireless technology, fingerprint reader, Windows XP Professional)	200782U	2007-82U	\$3,299
ThinkPad T60p (100.0 GB/7200 rpm, Intel Core Duo processor T2600, 1 GB, DVD Recordable, 14.1-in TFT 1400 X 1050, Intel 945PM, ATI Mobility FireGL V5200 256 MB, 9 Cell battery, Intel PRO/Wireless 3945ABG, Bluetooth wireless	200783U	2007-83U	3,379

technology,
fingerprint reader,
Windows XP Professional)

ThinkPad T60p 200786U 2007-86U 3,379
(100.0 GB/7200 rpm,
Intel Core Duo processor
T2600, 1 GB,
DVD Recordable, 14.1-in
TFT 1400 X 1050,
Intel 945PM,
ATI Mobility FireGL
V5200 256 MB,
9 Cell battery, ThinkPad
11a/b/g wireless,
Bluetooth wireless
technology,
fingerprint reader,
Windows XP Professional)

ThinkPad T60p 200787U 2007-87U 3,189
(100.0 GB/7200 rpm,
Intel Core Duo processor
T2600, 1 GB,
CD-RW/DVD-ROM Combo,
14.1-in TFT 1400 X 1050,
Intel 945PM,
ATI Mobility FireGL
V5200 256 MB,
9 Cell battery, Intel
PRO/Wireless 3945ABG,
Bluetooth wireless
technology,
Windows XP Professional)

ThinkPad T60p 200792U 2007-92U 3,599
(100.0 GB/7200 rpm,
Intel Core Duo processor
T2600, 1 GB,
DVD Recordable,
15.0-in TFT 1600 X 1200
Flexview display,
Intel 945PM,
ATI Mobility FireGL
V5200 256 MB,
9 Cell battery, ThinkPad
11a/b/g wireless,
Bluetooth wireless
technology,
fingerprint reader,
Windows XP Professional)

ThinkPad T60p 200793U 2007-93U 3,599
(100.0 GB/7200 rpm,
Intel Core Duo processor
T2600, 1 GB,
DVD Recordable,
15.0-in TFT 1600 X 1200
Flexview display,
Intel 945PM,
ATI Mobility FireGL
V5200 256 MB,
9 Cell battery, Intel
PRO/Wireless 3945ABG,
Bluetooth wireless
technology,
fingerprint reader,
Windows XP Professional)

ThinkPad T60p 200795U 2007-95U 3,519
(100.0 GB/7200 rpm,
Intel Core Duo processor
T2600, 1 GB,
CD-RW/DVD-ROM Combo,

15.0-in TFT 1600 X 1200
Flexview display,
Intel 945PM,
ATI Mobility FireGL
V5200 256 MB,
9 Cell battery, Intel
PRO/Wireless 3945ABG,
Bluetooth wireless
technology,
fingerprint reader,
Windows XP Professional)

ThinkPad T60p 200796U 2007-96U 3,489
(100.0 GB/7200 rpm,
Intel Core Duo processor
T2600, 1 GB,
CD-RW/DVD-ROM Combo,
15.0-in TFT 1600 X 1200
Flexview display,
Intel 945PM,
ATI Mobility FireGL
V5200 256 MB,
9 Cell battery, Intel
PRO/Wireless 3945ABG,
Bluetooth wireless
technology,
Windows XP Professional)

¹⁶ List price; does not include tax or shipping and is subject to change without notice. Reseller prices may vary.

ThinkPlus Services for Warranty and Maintenance

The offerings below apply to all models of machine type 2007. The models are 82U, 83U, 86U, 87U, 92U, 93U, 95U, 96U, and CTO.

Description	ThinkPlus part number
2-year IOR 9 x 5 NBD	41C9175
3-year IOR 9 x 5 NBD	41C9176
4-year IOR 9 x 5 NBD	41C9177
5-year IOR 9 x 5 NBD	41C9179
4-year P&L P/U Depot	41C9178
5-year P&L P/U Depot	41C9180

ThinkPlus MA for Post Warranty/Warranty Service Upgrade Service

Description	ThinkPlus part number
1-year IOR 9 x 5 NBD	41C9279
1-year P&L P/U Depot	41C9278
2-year IOR 9 X 5 NBD	41C9281
2-year P&L P/U Depot	41C9280

IBM Global Services is the preferred, authorized warranty service, warranty service upgrade, and post-warranty service provider for Lenovo products (excluding mainland China).

For ServiceElect (ESA) Maintenance Service Charges, contact IBM Global Services at 888-426-4343.

IBM Global Financing

IBM Global Financing offers competitive financing to credit-qualified customers to assist them in acquiring IT solutions. Our offerings include financing for IT acquisition, including hardware, software, and services, from both IBM and other manufacturers or vendors. Offerings (for all customer segments: small, medium, and

large enterprise), rates, terms, and availability can vary by country. Contact your local IBM Global Financing organization or visit the Web at

<http://www.ibm.com/financing>

IBM Global Financing offerings are provided through IBM Credit LLC in the United States and other IBM subsidiaries and divisions worldwide to qualified commercial and government customers. Rates are based on a customer's credit rating, financing terms, offering type, equipment type, and options, and may vary by country. Other restrictions may apply. Rates and offerings are subject to change, extension, or withdrawal without notice.

Financing solutions from IBM Global Financing can help you stretch your budget and affordably acquire the new product. But beyond the initial acquisition, our end-to-end approach to IT management can also help keep your technologies current, reduce costs, minimize risk, and preserve your ability to make flexible equipment decisions throughout the entire technology life cycle. For more financing information, visit

<http://www.ibm.com/financing>

Trademarks

Lotus SmartSuite and Lotus Notes are registered trademarks of International Business Machines Corporation in the United States or other countries or both.

Intel is a registered trademark of Intel Corporation.

Windows is a trademark of Microsoft Corporation.

Linux is a trademark of Linus Torvalds in the United States, other countries or both.

Lenovo, Active Protection System, and ThinkPlus are trademarks of Lenovo in the United States, other countries, or both.

ThinkPad and TrackPoint are registered trademarks of Lenovo in the United States, other countries, or both.

Other company, product, and service names may be trademarks or service marks of others.