

# ThinkPad Z61t notebook models include a three-year special bid on-site warranty

## Overview

The new ThinkPad® Z61t notebook computer is the ideal solution for frequent travelers who need high performance and a wide screen in a lightweight package. Education models are available only to public or private K-12, or higher, accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

The ThinkPad Z61t notebook models for education are for sale directly from IBM or through an Authorized Education Reseller. They are not available for resale to any other organization or individual.

## What's new

New models of the ThinkPad Z61t notebook include:

- Intel® Core Duo processors
- Intel 945PM Express chipset
- Intel PRO/Wireless 3945ABG<sup>8</sup> wireless connection on selected systems
- Three-in-one media card slot with Secure Digital memory, multimedia card, and xD picture card
- 358-mm (14.1-in) display with WXGA and WXGA+ resolutions
- Integrated camera and stereo microphone on selected models

## Unique data protection

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:
  - Intel Core Duo processor family

- Intel PRO/Wireless family
- Intel 945GM Express chipset family
- Integrated Intel Graphics Media Accelerator 950 graphics for clear images
- Intel PRO/Wireless 3945ABG LAN card on selected models
- Long battery operation: Up to 3 hours<sup>9</sup> with the four-cell system battery; up to 5 hours with the seven-cell system battery; and up to 7.4 hours with the seven-cell system battery and Ultrabay™ Slim Li-Polymer battery option
- UltraConnect antenna to help optimize frequency coverage and performance for improved wireless LAN connectivity around the world, when used with compatible options
- ThinkVantage Access Connections utility to help manage wired and wireless communications (if applicable)
- ThinkVantage Rescue and Recovery™ 3.0
- 358-mm (14.1-in) widescreen TFT display
- Microsoft™ Windows™ XP Professional
- Ultrabay Slim for fast and easy hot- and warm-swapping of selected options

**Light and portable:** The ThinkPad Z61t notebook is approximately 26.6 mm to 30.9 mm (1.05 to 1.22 in) thin<sup>10</sup> with optimal travel weight starting at 1.92 kg (4.22 lb)<sup>11</sup>. You have a choice of a black or titanium top cover.

**Robust system manageability:** The ThinkPad Z61t notebook features support for IBM Director Agent and is designed to the PXE 2.1 manageability requirements for mobile systems.

## At a glance

New models of the ThinkPad Z61t notebook feature:

- Intel Core Duo processor T2300E (1.66 GHz<sup>1</sup>, 2 MB L2 cache, 667 MHz front-side bus (FSB))
- PC2-5300 double data rate 2 (DDR2) SDRAM 667 MHz SO DIMM memory
- 512 MB of standard memory, expandable to 3 GB<sup>2</sup>
- 60 GB<sup>3</sup> (5400 rpm) HDD
- 24x-24x-24x-8x max CD-RW/DVD<sup>4,5</sup> Ultrabay Enhanced™ drive
- Fingerprint reader on selected models
- Choice of communications:
  - 56K<sup>6</sup> V.90<sup>7</sup> modem (V.92-designed) IEEE 1394 and 1 Gigabit Ethernet LAN connection
  - ThinkPad 11a/b/g wireless LAN card (Wi-Fi-certified based on IEEE 802.11a/b/g)
- UltraNav dual-pointing system featuring TrackPoint® and customized touch pad and Client Security Solution, Trusted Computing Group (TCG)-compliant

## Availability date

May 30, 2006

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

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## Description

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**ENERGY STAR:** All ThinkPad notebook models are designed to meet the EPA ENERGY STAR<sup>12</sup> requirements for using less than 15 watts of power in sleep mode when enabled by the power management software provided with the systems.

**Unique data protection:** Selected models include integrated fingerprint reader technology from ThinkVantage technologies to help 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 Password Manager and the Client Security Solution, pass your finger over the reader instead of typing passwords or combine it with passwords.
- Combine the integrated fingerprint reader with Password Manager and the Client Security Solution 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.

**ImageUltra™ services:** Selected ThinkPad notebooks are enabled for ImageUltra.

For more information, visit

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

### ThinkPad Z61t features

**Features available for this family of ThinkPad notebooks:** Certain product family features are limited to selected models that may not be available in all countries. Some combinations of features are not supported. Refer to the models and features available in your country.

- Intel Core Solo processor T2300E

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 processor speed is reduced to conserve battery power.

- HDDs: 40, 60, 80, 100 GB (5400 rpm), and 100 GB (7200 rpm)

An optional second HDD in the Ultrabay Enhanced expands storage. The second HDD option, requiring an adapter, can be used with all ThinkPad Z61t models.

- System memory: 256 MB, 512 MB, 768 MB, 1 GB, and 2 GB
- Optical drives: CD-RW/DVD-ROM Combo and DVD recordable Dual Layer

- Bluetooth wireless technology
- Integrated Sierra Wireless 1xEV-DO Network Adapter for Verizon Wireless Broadband Access
- Intel 945GM chipset and Integrated Intel Graphics Media Accelerator 950
- ThinkPad 11a/b/g Wi-Fi wireless
- Intel PRO/Wireless 3945ABG

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.

- Fingerprint reader
- 358-mm (14.1-in) widescreen TFT display with 1280 x 800 resolution with 185-nit panel or 1440 x 900 resolution with a 200-nit panel
- Four- and seven-cell Li-Ion battery
- Titanium and black top cover
- Microsoft Windows XP Professional and Windows XP Home
- VitalSource Library from VitalSource Technologies Inc.

### Leadership design

- The Active Protection System, a ThinkVantage technology, includes a 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; support for 2.4 GHz frequency band for 802.11b networks and four sub-bands in 5 GHz frequency band to meet unique country spectrum requirements for 802.11a networks
- ThinkVantage Access Connections software to easily manage wired and wireless connections
- Disk-to-disk recovery of preloaded software
- Client Security Solution (TCG-compliant)

### 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 IBM Remote Deployment Manager™
- Asset and data security via multiple passwords and locks

ThinkVantage Rescue and Recovery is a one-button recovery and restore solution that includes a set of

self-recovery tools to help you diagnose, get help, and recover from system crashes quickly, even if the primary operating system will not boot and you are remote from your support team.

- System Rejuvenation keeps data and system personality settings current when you restore.
- Antidote Delivery Manager allows IT staff to deliver fixes and updates to users wherever they are, even if the system is down from a worm or virus.
- The point and click wizard makes creating antidote scripts easy.
- Integration with other ThinkVantage Technologies allows migration from backup and chip-encrypted backups, combining great technologies to create an even more robust environment.

**Operating system:** Microsoft Windows XP Professional or Windows XP Home with selected applications

**LCD TFT widescreen display:** 358-mm (14.1-in) widescreen TFT display with 1280 x 800 resolution with 185-nit panel or 1440 x 900 resolution with a 200-nit panel

Display is measured diagonally.

#### Video modes

Intel GMA 945 (UMA max: 128 MB)  
with 1280 x 800 TFT display resolution

Resolution	TFT LCD Color depth		
640 x 480	256,	64K,	16M
768 x 480	256,	64K,	16M
800 x 600	256,	64K,	16M
960 x 600	256,	64K,	16M
1024 x 768	256,	64K,	16M
1280 x 768	256,	64K,	16M
1280 x 800	256,	64K,	16M
1280 x 1024	256(13),	64K(13),	16M(13)
1440 x 900	256(13),	64K(13),	16M(13)
1600 x 1200	256(13),	64K(13),	16M(13)
1680 x 1050	256(13),	64K(13),	16M(13)

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 800	256	60,	70,	72,	75,	85,	90,	100,	120
1280 x 800	64K	60,	70,	72,	75,	85,	90,	100,	120
1280 x 800	16M	60,	70,	72,	75,	85,	90,	100,	120
1280 x 1024	256	60,	70,	75,	85,	90,	100,	120,	
1280 x 1024	64K	60,	70,	75,	85,	90,	100,	120,	
1280 x 1024	16M	60,	70,	75,	85,	90,	100,	120,	
1600 x 1200	256	60,	75,	85,	100				
1600 x 1200	64K	60,	75,	85,	100				
1600 x 1200	16M	60,	75,	85,	100				
2048 x 1536	256	60,	66,	70,	75				
2048 x 1536	64K	60,	66,	70,	75				
2048 x 1536	16M	60,	66,	70,	75				

Intel GMA 945 (UMA max: 128 MB)  
with 1440 x 900 TFT display resolution

Resolution	TFT LCD Color depth		
640 x 480	256,	64K,	16M
768 x 480	256,	64K,	16M
800 x 600	256,	64K,	16M
960 x 600	256,	64K,	16M
1024 x 768	256,	64K,	16M
1280 x 768	256,	64K,	16M
1280 x 800	256,	64K,	16M
1280 x 1024	256(13),	64K(13),	16M(13)
1440 x 900	256(13),	64K(13),	16M(13)
1600 x 1200	256(13),	64K(13),	16M(13)
1680 x 1050	256(13),	64K(13),	16M(13)

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,	72,	75,	85,	90,	100,	120
1280 x 1024	64K	60,	70,	72,	75,	85,	90,	100,	120
1280 x 1024	16M	60,	70,	72,	75,	85,	90,	100,	120
1600 x 1200	256	60,	75,	85,	100				
1600 x 1200	64K	60,	75,	85,	100				
1600 x 1200	16M	60,	75,	85,	100				
1680 x 1050	256	60							
1680 x 1050	64K	60							
1680 x 1050	16M	60							
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, center-scrolling button, and a touch pad.
- ThinkLight®: Easy to view your keyboard in low-light conditions.
- ThinkVantage button provides one-button access to critical information.
- 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

- PC2-5300 double data rate 2 (DDR2) SDRAM 667 MHz SO DIMM memory
- 256 MB, 512 MB, 1 GB, or 2 GB of standard memory expandable to 3 GB of addressable memory. Memory options up to 2 GB DDR SO DIMMs each can be added in the two slots for memory expansion.

To achieve the maximum 3 GB, you need to replace the existing memory cards if applicable with a 1 GB card and add another 2 GB card in the extra slot.

The use of 667 MHz SO DIMM memory is recommended for this system;

### **Card slots**

- One Type II slot
- One three-in-one media card slot with Secure Digital memory, multimedia card, and xD picture cards

**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 is supported by models with discrete graphics. It requires the optional ThinkPad Advanced Dock, ThinkPad Advanced Mini-Dock, or ThinkPad Essential Port Replicator.

**Infrared (IR):** The system has one fast IR transceiver (up to 4 Mbps) for wireless file and data transfer and printing. The ThinkPad Z61t notebook is designed for compliance with the Infrared Data Association (IrDA) IR data link specification V1.1.

**Other features:** The ThinkPad Z61t systems include these ports:

- External display
- Built-in RJ-11 and RJ-45 connectors for telephony and LAN connections
- IR
- Microphone
- Headphone
- Three USB 2.0 ports
- IEEE 1394
- S-Video out (TV out)

PS/2® and serial ports are not included, but can be obtained through the optional ThinkPad Essential Port Replicator, ThinkPad Advanced Dock, or ThinkPad Advanced Mini-Dock.

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

The 240-pin connector supports these optional docking solutions:

- ThinkPad Essential Port Replicator for simple port replication and cable management
- 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 four- or seven-cell battery is shipped with the system.
- Long battery operation: Up to 4.0 hours on the six-cell system battery.
- An optional Li-Ion battery pack, the Ultrabay Enhanced Li-Polymer battery, fits into the Ultrabay Enhanced 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

battery pack is rechargeable and 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 charging<sup>14</sup>: 3.5 hr
- Charging during operation<sup>14</sup>: 3.5 to 6.0 hr
- Battery operation: Up to 3.7 hr
- Battery life:
  - Solo or Duo Core processors: 3.5 hr
  - Celeron processors: 2.3 hr

### **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 that may be included or preloaded on the system**

- ThinkVantage fingerprint software
- VitalSource Library from VitalSource Technologies, Inc.

#### **Software preload (Windows XP Professional)**

- Microsoft Windows XP Professional
- InterVideo WinDVD Player —only for systems with DVD drive or DVD/CD-RW or DVD-RW
- InterVideo WinDVD Creator —only for systems with DVD-RW drive
- ThinkVantage Productivity Center
- ThinkVantage System Update
- PC-Doctor diagnostics
- Google Desktop
- Google Toolbar
- Picasa by Google
- Diskeeper Lite by Diskeeper Corporation
- Multimedia Center for Think Offerings (Sonic RecordNow Business and DLA) —only for systems with CD-RW, DVD-CD-RW, or DVD-RW
- ThinkVantage Access Connections
- Adobe Acrobat Reader
- ThinkVantage Rescue and Recovery
- Symantec Client Security Software (OEM Edition) with 90 days of virus definition updates
- ThinkVantage fingerprint software on selected systems

## Software preload (Windows XP Home)

- Microsoft Windows XP Home Edition
- InterVideo WinDVD Player —only for systems with DVD drive or DVD/CD-RW or DVD-RW
- InterVideo WinDVD Creator — only for systems with DVD-RW drive
- ThinkVantage Productivity Center
- ThinkVantage System Update
- PC-Doctor diagnostics
- Google Desktop
- Google Toolbar
- Picasa by Google
- Diskeeper Lite by Diskeeper Corporation
- Multimedia Center for Think Offerings (Sonic RecordNow Business and DLA) —only for systems with CD-RW, DVD-CD-RW, or DVD-RW
- ThinkVantage Access Connections
- Adobe Acrobat Reader
- ThinkVantage Rescue and Recovery
- Symantec client security software (OEM Edition) with 90 days of virus definition updates
- ThinkVantage fingerprint software on selected systems

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## 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.

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## Reference information

- <sup>1</sup> Power management reduces processor speed when in battery mode.
- <sup>2</sup> Maximum capacity; may require the replacement of standard component with largest supported component available.
- <sup>3</sup> GB equals one billion bytes when referring to HDD. Accessible capacity is less. Up to 4 GB is used in the service partition.
- <sup>4</sup> Maximum CD and DVD rates; rates are variable and are often less than the maximum.
- <sup>5</sup> For combination drives, maximum speeds are given in the following order: CD-W, CD-RW, CD-R, and DVD-R.
- <sup>6</sup> 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.
- <sup>7</sup> 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 the V.92 support device driver when available. Check with your telephone and Internet service providers for availability.

- <sup>8</sup> 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 on any of these formats; the actual connection is based on the access point to which it connects.

- <sup>9</sup> 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. (VeriTest) 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.

- <sup>10</sup> Thickness may vary at certain points on the system.
- <sup>11</sup> 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 Plus™.
- <sup>12</sup> As an ENERGY STAR partner, Lenovo has determined that all models of this product meet the ENERGY STAR guidelines for energy efficiency.
- <sup>13</sup> Supported in panning mode.
- <sup>14</sup> Recharge time also varies.

## Trademarks

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

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Microsoft and Windows are trademarks of Microsoft Corporation.

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# United States Announcement Supplemental Information

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May 30, 2006

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## Optional features

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For the latest information on options available for the ThinkPad® Z61t models and other ThinkPad notebooks, visit

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

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## Services

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### *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.

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## Technical information

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### *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.

- Width: 334 mm (13.1 in)
- Depth: 228 mm (9.0 in)
- Height: 26.6 to 30.9 mm (1.05 to 1.22 in)
- Weight (with black top cover, seven-cell battery, and travel bezel): 2.05 kg (4.53 lb)

#### *Accessories*

- Seven-cell Li-Ion battery pack: 380 g (0.84 lb)
- AC adapter (two-pin or three-pin): 360 g (0.795 lb)
- Power cord for ac adapter: 90 g (0.19 lb)
- Multi-Burner DVD Recordable drive: 195 g (0.43 lb)

#### *Electrical specifications*

- Universal ac adapter (90 W):
  - Input: 100/240 V ac, 1.7/0.6 A, 50/60 Hz
  - Output: 20 V dc, 4.5 A
- Li-Ion battery pack: 10.8 V, 65.52 Wh

**Heat dissipation:** 246 Btu/hr maximum

**Heat emissions:** 72 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.

**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 ThinkPad notebooks. They are not intended to withstand extreme temperatures, dust, shock, or severe physical environments. ThinkPad systems should not be used in unsuitable environments. For example, a ThinkPad system should not be used in non-stationary 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.

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*This announcement is provided for your information only.*

For additional information about supported environments, refer to the **Physical specifications** section.

#### **Air temperature**

- 0 to 8,000 ft:
  - Operating:
    - 5° to 35°C (41° to 95°F) (without diskette)
    - 10° to 35°C (50° to 95°F) (with diskette inside unit)
  - 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) (without diskette)
    - 10° to 31.3°C (50° to 88°F) (with diskette inside unit)
  - 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% (without diskette)
  - 8% to 80% (with diskette inside unit)
- Storage/shipment: 5% to 95%

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

#### **Agency approvals**

System unit

- FCC Class-B certified to comply with FCC Rules, Part 15
- VCCI Class B
- CISPR22 Class B
- UL 60950
- CSA C22.2 No. 950
- NOM
- SASO
- IEC 60950
- ACA
- MPR-II (Sweden)
- CE Mark
- CCC (for China)
- BSMI
- CER

#### **Software requirements**

- Microsoft™ Windows™ 2000 Professional (no service pack, SP1, SP2, SP3, SP4) with USB 2.0 support

- Windows XP Professional (no service pack, SP1, SP1a, SP2) with USB 2.0 support
- Windows XP Home (no service pack, SP1, SP1a, SP2) with USB 2.0 support

For information about support for these operating systems, visit

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

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

For a list of completed Linux™ certifications, visit

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

Operating systems other than those preinstalled on the system may not perform all functions at an optimal level. To view considerations or Service Hints and Tips by operating system, visit

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

- In the middle of the page, in the Quick path to a product field, enter your system's four-digit machine type and model number, such as 2514-123.
- 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 Z61t notebook conforms to the PC Card Standard 95. The new PC Card Standard encompasses both the former 16-bit Release 2.1 card standard and the new 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 Z61t 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 Z61t computer and to maintain compatibility with many software programs currently operating under Windows 2000.

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

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

## General

- ThinkPad 11a/b/g Wireless Mini-PCI Express Adapter (ThinkPad 11a/b/g) and ThinkPad 11b/g Wireless Mini-PCI Express Adapter (ThinkPad 11b/g) support ad hoc wireless connection mode for 2.4 GHz 802.11b connections. ThinkPad 11a/b/g and ThinkPad 11b/g 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. Ad hoc wireless connection mode is not supported for 5 GHz connections (802.11a).
- The Ultrabay™ does not support the combination of PATA HDD and the ThinkPad 2nd HDD Adapter Option (62P4554) although the second HDD adapter can be physically attached to the Ultrabay.
- Do not use the RJ-11, RJ-45, or VGA port when the computer is docked on the ThinkPad Advanced Dock, ThinkPad Advanced Mini-Dock, or ThinkPad Essential Port Replicator.
- Selected systems are wireless upgradable with wireless LAN Mini-PCI Express 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.
- ThinkVantage™ 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

## Planning information

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

**Installability:** ThinkPad Z61t 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 optional features.

## Packaging

- System unit with the appropriate processor, HDD, and display
- 512 MB of memory
- DVD Recordable
- Modem, Ethernet, and IEEE 1394
- Client Security Solution
- Wi-Fi wireless card
- Bluetooth card and antenna
- Appropriate preloaded software

## Shipment group

- System unit with U.S. English keyboard
- AC adapter
- Rechargeable battery pack (Li-Ion)
- Power cord
- TrackPoint® caps

- ThinkPad Z Series Service and Troubleshooting Guide
- ThinkPad Z 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): Insurance brochure

**Supplies:** None

## 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.

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## Terms and conditions

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**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 providers 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, return instructions and a container are shipped with the replacement CRU, and 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.

**On-site service:** Your service provider will either repair or exchange the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the machine. The area must be clean, well-lit, and suitable for the purpose. For some Machines, certain repairs may require sending the machine to a designated service center.

**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, 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.

**Educational allowance:** None

## **Prices**

### **Mobile products**

#### **U.S. English machines**

#### **Windows XP Professional**

Description	Part number	Machine type/model	List price(15)
ThinkPad Z61t (60.0 GB at 5400 rpm, Intel Core Duo processor T2300E, 512 MB, 14.1-in widescreen TFT (1280 x 768), CD-RW/DVD-ROM Combo, Intel 945GM, Intel Graphics Media Accelerator 950 chipset, 4-cell battery, ThinkPad 11a/b/g wireless, Client Security Solution, fingerprint reader, IEEE 1394, black top cover)	944396U	9443-96U	\$1,699
ThinkPad Z61t (60.0 GB at 5400 rpm, Intel Core Duo processor T2300E, 512 MB, 14.1-in widescreen TFT (1280 x 768), CD-RW/DVD-ROM Combo, Intel 945GM, Intel Graphics Media Accelerator 950 chipset, 4-cell battery, ThinkPad 11a/b/g wireless, Client Security Solution, fingerprint reader, IEEE 1394, titanium top cover)	944398U	9443-98U	1,699
ThinkPad Z61t (60.0 GB at 5400 rpm, Intel Core Duo processor T2300E, 512 MB, 14.1-in widescreen TFT (1280 x 768), CD-RW/DVD-ROM Combo, Intel 945GM, Intel Graphics Media Accelerator 950 chipset, 4-cell battery, ThinkPad 11a/b/g wireless, Client Security Solution, fingerprint reader, IEEE 1394, black top cover, VitalSource Technology)	9443E1U	9443-E1U	1,999
ThinkPad Z61t (60.0 GB at 5400 rpm, Intel Core Duo processor T2300E, 512 MB, 14.1-in widescreen TFT (1280 x 768), CD-RW/DVD-ROM Combo, Intel 945GM, Intel Graphics Media Accelerator 950 chipset, 4-cell battery, ThinkPad 11a/b/g wireless, Client Security Solution, fingerprint reader, IEEE 1394, titanium top cover, VitalSource Technology)	9443E3U	9443-E3U	1,999

(15) 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**

### **ThinkPlus MA for post warranty/warranty service upgrade service**

Description	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

IOR = IBM on-site repair  
NBD = Next-business-day

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.

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

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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.

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