Detailed specifications - ThinkPad T43/p

Architecture

Audio

- Analog Devices AD1981B AC'97 Soft Audio (Full-duplex)
- AC97 2.2 compatible
- Speaker technology
  - Stereo speaker
- Volume up, down, and mute buttons
- Two audio jacks:
  - One for external stereo speakers or headphone
  - One for external microphone

Keyboard

- 86 key keyboard with imbedded numeric keypad and integrated UltraNav dual-pointing system, featuring TrackPoint and customized touch pad for the ultimate in pointing flexibility
- 90 DBCS key keyboard with imbedded numeric keypad and integrated UltraNav dual-pointing system, featuring TrackPoint and customized touch pad for the ultimate in pointing flexibility
- ThinkPad button, ThinkLight keyboard light, individual volume up, down, and mute buttons
- The keyboard has a Fn key which is a special key and is located in the lower left corner. The Fn key allows the user to instantly activate the following operational features by pressing the Fn key and a designated function key:
  - Standby/Suspend/Hibernation
  - Switching between Display device
- Fingerprint reader is integrated into the palm rest of the ThinkPad notebook computer to prevent unauthorized access to your notebook and data.

Memory

- PC2-4200 CL4 Non-Parity (NP) Double Data Rate Two (DDR2) Synchronous DRAM (SDRAM) SODIMM memory
- 200-pin SODIMM with gold-plated leads
- 256 MB, 512 MB, or 1 GB PC2-4200 CL4 NP DDR2 SDRAM SODIMM
- Supports up to two 1GB SDRAM SODIMMs
- Supports maximum memory up to 2GB

Mouse

- All systems come with the UltraNav dual-pointing system, featuring TrackPoint and customized touch pad for the ultimate in pointing flexibility is a part of the keyboard. The TrackPoint features Press-to-Select, Internet scroll, and magnifying glass for accurate and convenient control.

Processor

- Available processors are Intel Mobile Pentium M 730, 740, 750, 760, 770
- Enhanced Intel SpeedStep technology
- Intel Mobile Pentium M have 2 MB of L2 cache memory

Communications

Infared (IR)

- IR transceiver for wireless file and data transfer and printing.
- Speeds up to 4Mbps.
- Compatible with the Infrared Data Association (IrDA) IR data link specification

Modem

- Selected models have a modem communication daughter card (CDC)
- K56Flex v.92

Note: Public network download speeds are limited to 53kbps. Upload speeds are limited to 48Kbps. Actual speeds depend on many factors and are often less than the maximum stated.

Network

- 1Gb Ethernet installed on systems via the system board
- Intel 802.11b/g Mini PCI wireless adapter on selected models
- Intel 802.11a/b/g Mini PCI wireless adapter on selected models
- ThinkPad High Rate 802.11a/b/g Mini PCI wireless adapter on selected modelss
- ThinkPad 802.11a/b wireless adapter on selected modelss
- Bluetooth/Modem combo card on selected models

Expansion

Bays

- One integrated, easy-loading modular Ultrabay Slim
- One Mini PCI IIIb slot (not a customer replaceable unit (CRU))
- One CDC slot (not a CRU)

External ports

- Two USB ports version 2.0
- One parallel (EPP, ECP) compatible
- Additional connector supports the optional Port Replicator and dock
- Two audio ports
  - One for external stereo speakers or headphone
  - One for microphone-in
- S-Video out
- CRT port for external monitor
- Built-in RJ-11 and RJ-45 connectors for telephony and LAN connections

Note: There is no Serial or PS/2 port but they can be obtained by getting the optional ThinkPad Port Replicator or ThinkPad Dock.

PC Card

- One PCMCIA type II slot
  - Conforms to the PC Card Standard 95
  - Accomodates either one Type I, one Type II
  - 16-bit and 32-bit cards are supported
  - PCMCIA 2.1 standard

- ○ No zoom video support
- One Express card slot

Operating environment

Physical specificaitons

System with 14.1in display:
- Width: 311 mm (12.2 in)
- Depth: 255 mm (10.0 in)
- 26.6 to 31 mm (1.0 to 1.2 in)
- Configured system weight (with DVD-ROM or CD-ROM): 2.22 kg (4.9 lb)

System with 15.0in display:
- Width: 329 mm (13.0 in)
- Depth: 268 mm (10.6 in)
- Height: 31 to 36mm (1.2 to 1.4in)
- Configured system weight (with DVD-ROM or CD-ROM): 2.57 kg (5.7 lb)

Accessories:
- Battery pack (Li-Ion): 325 g (0.72 LB)
- AC adapter: 360 g (0.795 LB)
- Power cord for AC adapter: 90g (0.19lb)
- DVD drive: 345 g (0.76 LB)

Note: All weight and dimensions are approximate.

Temperature specifications

- Heat dissipation: 246 Btu/hr maximum
- Heat emissions: 72 watts maximum

Agency 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)

Power

AC Adapter

- AC adapter: This ac-to-dc converter supplies the necessary power to the computer. The ac adapter also charges the battery pack when it is installed in the computer.
- Universal AC adapter (72 W):
  - ○ Input is 100/240V AC, 1.4/0.7A, 50/60Hz
  - ○ Output is 16 V dc, 4.5

Battery

- 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 manage the battery power by using the Battery MaxiMiser and Power Management Features utility.
- A different Li-Ion battery pack fits into the Ultrabay Slim so that two batteries can be installed to increase battery operating time.
- A six or nine cell Li-Ion battery pack is shipped with the system.
- Li-Ion battery pack:
  - ○ six cell, 10.8V, 4.4Ah

- nine cell, 10.8V, 6.6Ah
- Approximate operation and charging hours are:
  - Power off/suspend charging (*1):
    - 6 cell: 3.6hr
    - 9 cell: 4.5hr
  - Charging during operation (*1)(*2):
    - 6 cell: 3.6 to 6.0hr
    - 9 cell: 4.5hr to 6.0hr
  - Battery operation times(*2):
    - Six cell Up to 3.8 hours
    - Nine cell Up to 5.7 hours
    - Nine cell plus bay battery Up to 7.4 hours

Notes:

(*1) Recharge time also varies.
(*2) These model numbers achieved eTesting Labs, Inc.'s BatteryMark 4.0.1 or the Ziff Davis Media Inc.'s Business Winstone 2002 BatteryMarkTM Version 1.0 Battery Rundown Time of at least the times shown above. This test was performed without independent verification by 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. A description of the environment under which the test was performed is available at:
www.ibm.com/pc/ww/thinkpad/batterylife.html. Battery life (and recharge times) will vary based on many factors including screen brightness, applications, features, power management, battery conditioning and other customer preferences.

Security

System

- Security Chip on selected models
- Locking device in the security slot provides physical security.
- The Embedded Security Subsystem (TCPA compliant) provides for authentication and encryption of data communications. The integrated 802.11b wireless lets you connect to a LAN without wires or cables. To connect to the Internet, the optional ThinkPad High Rate Wireless Access Point 500 and an Internet phone number are required.
- Fingerprint reader offers users a convenient solution, authenticate at system startup and log on to Windows with a swipe of your finger.

Password

- A Power-on password (POP) protects the system from unauthorized use. If a POP is set, the password prompt appears:
  - Each time the system is turned on
- When the system is returned to normal operation from suspend mode
- A Supervisor Password provides a higher level of security than the POP. The Supervisor Password protects the system functions from being used by unauthorized users,and protects the hardware configuration from unauthorized modification. The Supervisor Password prompt appears:
  - When the BIOS setup screen is accessed.
- A HDD Password (HDP) protects HDD data from unauthorized users. Once HDP is set, data on the HDD cannot be accessed without the correct HDP. Because the HDP is stored in the HDD, the data remains protected even if the HDD is removed to another system. The HDP password prompt appears:

- Each time the system is turned on

Software

Operating system

The following operating systems are supported on the ThinkPad T43 systems:
- OS/2 Warp Convenience Package 2 V4.52 Refresh MCP2 Refresh: XR_4503 with FixPak XR_C004, or later, and XR_D003, or later
- OS/2 Warp Convenience Package 1 V4.51 MCP1: XR_4501 with FixPak XR_C004, or later, and XR_D003, or later
- OS/2 Warp Convenience Package 2 V4.52 MCP2: XR_4502 with FixPak XR_C004, or later, and XR_D003, or later
- Windows 98 Second Edition with USB 1.1 support
- 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
- Windows NT 4 (SP6a) with limited USB 1.1 support

The following operating systems are supported on the ThinkPad T43p systems:
- Windows 2000 Professional (no service pack, SP1, SP2, SP3, or SP4) with USB 2.0 support
- Windows XP Professional (no service pack, SP1, SP2) with USB 2.0 support

Notes:
- Previous versions of these operating systems are not supported.
- Operating systems other than those preinstalled on the systems may not provide full-feature functionality

Storage

Optical drive

- 24x-8x DVD Ultrabay slim drive
- 24x24x24x/8x CD-RW/DVD Ultrabay slim drive
- 4x Multi-Recorder Ultrabay slim drive
- Bootable

Floppy drive

- Only available using USB or Docking solution

Hard disk drive (HDD) features

- Supported HDD thickness: 9.5mm for all systems
- Standard 30GB, 40GB, 60GB, 80GB HDD sizes
- Supports one additional HDD which can be used concurrently to offer expanded storage in the Ultrabay Slim
- S.M.A.R.T technology to issue an alert if a hardware failure is pending
- ATA Bus Interface
- 4200, 5400,or 7200 rpm depending on drive size
- Although you can upgrade the HDD, it is not designed to be removed and reinserted on a regular basis. Repeated and frequent removal, for purposes other than to upgrade for greater capacity, can cause damage to the system. The Ultrabay Slim HDD adapter is designed to provide this flexibility with a second HDD in the Ultrabay Slim.
- The Hard Drive Active Protection system protects your HDD when the shock sensor inside your ThinkPad computer detects a situation that could potentially damage the HDD.

Video

Display

14.1-inch, 16M colors, XGA (1024 × 768 resolution) TFT display
14.1-inch, 16M colors, SXGA+ (1400 × 1050 resolution) TFT display
15.0-inch, 16M colors, XGA (1024 × 768 resolution) TFT display
15.0-inch, 16M colors, SXGA+ (1400 × 1050) TFT display
15.0-inch, 16Mcolors, UXGA (1600 × 1200) TFT display

Notes:

- Support for a DVI monitor is through the ThinkPad Dock II option and is limited to a resolution of 1280 x 1024 at 60 Hz. Machine types 1871, 1872, 1873, 1874, 1875, and 1876 do not support DVI monitors.
- All displays are measured diagonally.

Graphic Controller

Video chipsets:

- ATI - Machine types 2668, 2669, 2678, 2679, 2686, and 2687
    - 128 MB ATI Mobility FIRE GL V3200
    - 64 MB ATI Mobility Radeon X300
- Intel - Machine types 1871, 1872, 1873, 1874, 1875, and 1876
    - Intel Graphics Media Accelerator 900
    - Intel Graphics Media Accelerator 300

128MB ATI Mobility FIRE GL V3200 with 1600x1200 resolution TFT FlexView display color depth chart

Resolution	LCD Color depth
640x480	256, 64k, 16M
800x600	256, 64k, 16M
1024x768	256, 64k, 16M
1280x1024	256, 64k, 16M
1600x1200	256, 64k, 16M
2048x1536	256*, 64k*, 16M*

Note: * Supported only in panning mode on LCD

128MB ATI Mobility FIRE GL V3200 and 64MB ATI Mobility Radeon X30 with 1400x1050 resolution TFT display color depth chart

Resolution	LCD Color depth
640x480	256, 64k, 16M
800x600	256, 64k, 16M
1024x768	256, 64k, 16M
1400x1050	256, 64k, 16M
1280x1024	256, 64k, 16M
1600x1200	256*, 64k*, 16M*
2048x1536	256*, 64k*, 16M*

Note: * Supported only in panning mode on LCD

64 MB ATI Mobility Radeon X300 and Intel Graphics Media Accelerator

900\300 with 1024 x 768 TFT display color depth chart

Resolution	LCD Color depth
640x480	256, 64k, 16M
800x600	256, 64k, 16M
1024x768	256, 64k, 16M
1280x1024	256*, 64k*, 16M*
1600x1200	256*, 64k*, 16M*
2048x1536	256*, 64k*, 16M*
Note: * Supported only in panning mode on LCD	

128 MB ATI Mobility FIRE GL V3200 and 64 MB ATI Mobility Radeon X300 refresh rate chart

Resolution	Supported refresh rates in Hz for external monitors
640x480	60, 72, 75, 85, 90, 100, 120, 160 Hz
800x600	60, 70, 72, 75, 85, 90, 100, 120, 160 Hz
1024x768	60, 70, 72, 75, 85, 90, 100, 120, 150, 160 Hz
1280x1024	60, 70, 75, 85, 90, 100, 120, 160 Hz
1400x1050*	60
1600x1200	60, 75, 85, 100, 120 Hz
2048x1536	60, 66, 70, 75 Hz
Note: * Not supported on 64 MB ATI Mobility Radeon X300 with 1024x768 TFT models	

Intel Graphics Media Accelerator 900\300 refresh rate chart

Resolution	Supported refresh rates in Hz for external monitors
640x480	60, 75, 85, 100, 120 Hz
800x600	60, 75, 85, 100, 120 Hz
1024x768	60, 70, 75, 85, 100, 120 Hz
1280x1024	60, 85, 100, 120 Hz
1600x1200	60, 75, 85, 100 Hz
2048x1536	60, 75 Hz

Applicable countries and regions

Worldwide

Document id: MIGR-58317
Last modified: 2005-12-29
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