## **IBM ThinkPad X Series notebooks**



### Highlights

- Carry nearly nothing: this ultraportable notebook starts at 3.4 lb<sup>1</sup> and about 1" thin<sup>2</sup>, still features a 12.1" display
- Simplify setup and management of communications with Access Connections
- Work where you want with integrated wireless (requires wireless LAN) and embedded security on select models for more secure communications
- Rely on HelpCenter<sup>®</sup> support available worldwide, 24 hours a day, 7 days a week<sup>3</sup>

### Small package, big performance

Constantly on the move? Spending most working time away from the office? Traveling users will appreciate a ThinkPad® X Series notebook, packed with features for users on the move, including a new powerful, low-voltage Intel® processor up to 800MHz<sup>4</sup> and an amazing 5 hours of battery life<sup>5</sup>.

### The ThinkPad e-xperience

ThinkPad X Series notebooks are designed to make computing simpler and easier to manage. A Titanium Composite top cover, the ThinkPad Button and common docking and options across ThinkPad Series<sup>6</sup> work together to provide a better e-xperience.

### NE<sup>W!</sup> Freedom from your desk

Integrated, Wi-Fi-certified 802.11b wireless technology on select ThinkPad X Series notebooks provides a wireless connection to information on an access point-equipped network. Rigorous testing won these systems Wi-Fi certification, the industry symbol of interoperability. Plus, Access Connections lets you save your connectivity settings and easily switch between modem, Ethernet and wireless.

### NEW!

### **Trusted communications**

The IBM Embedded Security Subsystem (IBM Client Security Software 2.0 download required) on select ThinkPad X Series notebooks helps safeguard your data and Internet communications by encrypting files on the hard disk drive and storing encryption keys and passwords right in the existing hardware, where they are best protected. (Communications encryption requires third-party software.)

### ThinkPad X Series features



### The ThinkPad e-xperience

- **1** UltraPort connector is in a better location for more options like the **NEW!** IBM UltraPort Camera II or Bluetooth<sup>™</sup> UltraPort Module from IBM. **2 Titanium Composite cover** is up to 3 times stronger than ABS plastic<sup>7</sup> while maintaining a thin and light design. 3 The ThinkPad Button launches **Access ThinkPad** to simplify access to online<sup>8</sup> and on-system resources, including Access Connections connectivity management software and award-winning service and support. A NEW! The IBM Embedded Security Subsystem (IBM Client Security Software 2.0 download required) helps protect data locally and works with third-party software to help secure communications (select models). 5 NEW! IrDA port allows you to easily sync with your handheld device. **(6) IBM keyboard** with standard-size<sup>9</sup> keys, individual volume control and TrackPoint® pointing device with Internet Scroll Bar provides comfort and ease.
- **ThinkLight keyboard light**, unique to IBM ThinkPad notebooks, lets you work in low-light conditions.
- Integrated 802.11b wireless technology with dual-antenna system (select models) built into either side of the display provides strong signal performance<sup>10</sup>.
- 9 Flexible docking options—common to ThinkPad X, T, R and A Series notebooks:
  - ThinkPad Port Replicator—easy cable management
  - ThinkPad Dock—cable management plus simple desktop expansion including an Ultrabay<sup>™</sup> 2000
- Optional UltraBase X2 media slice—easy-to-carry expansion slot includes an Ultrabay 2000 for CD-RW/DVD Combo drive and other media and storage devices.
- (1) **RJ-11 and RJ-45 ports** eliminate the need for cable or card swapping to get connected on select models with integrated Ethernet and a V.92-ready modem.

ThinkPad X Series specifications		
Machine type	2662 (9EU, 9DU, 97U, 9GU, 95U, 9BU, 92U, 9AU)	2662 (8BU, 85U)
Processor/Level 2 cache <sup>11</sup>	NEW! ● at 800MHz <sup>4</sup> /512KB	● at 733MHz/512KB
Display/resolution	12.1" TFT XGA (1024x768)	12.1" TFT XGA (1024x768)
Hard disk drive	20GB <sup>12</sup>	10GB
Memory (std/max) <sup>13</sup>	128MB/640MB PC133 SDRAM	128MB/640MB PC133 SDRAM
Video graphics (chip)	8MB SGRAM ( <b>NEW!</b> ATI Rage Mobility M6)	8MB SGRAM (ATI Rage Mobility M6)
Communications	9EU, 9DU: 802.11b wireless, 56K <sup>14</sup> modem*, 10/100 Ethernet 97U, 9GU, 95U, 9BU: 56K modem*, 10/100 Ethernet 92U, 9AU: 56K modem*	56K modem*, 10/100 Ethernet
Battery type/battery life <sup>5</sup>	92U, 9AU: Li-Ion/5.0hr 97U, 9GU, 95U, 9BU: Li-Ion/4.6hr 9EU, 9DU: Li-Ion/4.4hr	Li-Ion/2.7hr
Ports	infrared, RJ-11, RJ-45, 2 USB, headphone, line-in and microphone, external monitor, UltraPort connector	
Slots	1 Type II PC Card, CompactFlash	1 Type II PC Card, CompactFlash
IBM Embedded Security Subsystem	97U, 9GU: yes 9EU, 9DU, 95U, 9BU, 92U, 9AU: no	no
Titanium Composite cover	top	top
Keyboard	ergonomic keyboard (85 keys, 18.5mm vertical stroke and 18.2mm horizontal key pitch, 2.5 mm stroke) with palm rest, TrackPoint pointing device with "Press-to-Select" and Internet Scroll Bar	
Dimensions <sup>2</sup>	11"x8.9"x0.98-1.2"	11"x8.9"x0.98-1.2"
Weight <sup>1</sup>	97U, 9GU, 95U, 9BU, 92U, 9AU: 3.6 lb 9EU, 9DU: 3.7 lb	3.4 lb
Port Replicator/Dock support	yes	yes

NEW! ● Mobile Intel Pentium<sup>®</sup> III Processor-M

\*V.92-ready

Software		
Preloaded operating system <sup>15</sup>	9EU, 97U, 95U, 92U: WXP 8BU: WXP 9DU, 9GU, 9BU, 9AU: W2000 85U: W2000	Comprehensive support included
Supported operating systems <sup>16</sup>	WXP, 2000, Windows® 98 Second Edition, Windows 95, Windows NT®	with your purchase
Included software <sup>17</sup> (preloaded) (downloadable) (license)	<ul> <li>Access ThinkPad <ul> <li>Access Connections</li> <li>Access Help</li> </ul> </li> <li>ConfigSafe</li> <li>PC Doctor</li> <li>ThinkPad Utilities</li> <li>IBM Backup and Restore</li> <li>IBM Data Transfer</li> <li>Universal Manageability (UM Services<sup>™</sup>)</li> <li>Update Connector<sup>TM,18</sup></li> <li>IBM Client Security Software 2.0 (security subsystem models only)</li> <li>Lotus<sup>®</sup> SmartSuite<sup>®</sup> Millennium (CD not included)</li> </ul>	<ul> <li>Limited warranty of one or three years**</li> <li>Personalized Web-based support<sup>20</sup></li> <li>International Warranty Service<sup>21</sup></li> <li>24x7 toll-free hardware support<sup>3</sup> during the warranty period</li> <li>EasyServ<sup>™</sup> onsite pickup and delivery<sup>22</sup></li> </ul>

NEW! WXP=Microsoft® Windows XP Professional

W2000=Windows 2000 Professional

\*\*See page 6 for additional warranty information<sup>19</sup>.

### Manageability services<sup>23</sup>

Installation Services Plus Data Migration	Get your new systems up and running with ServicePac® for Installation Plus Data Migration. Basic and enhanced services let you pick the level of service you need. Both offer data migration to get your new systems functioning like your old systems quickly. Visit <b>ibm.com</b> / services/its/us/ss-spinstl.html for more information.
Data Migration Kits	Easily move the data from your old system to your new system with an IBM Data Migration Kit. These kits include the hardware and software necessary to transfer the data files and personal settings from your old computer. Visit <b>ibm.com</b> /pc/services for more information.
Easier long-term deployment	IBM ThinkPad notebooks offer workhorse and global models for stable and easy long-term deployment. Visit <b>ibm.com</b> /pc/workhorse for more information.

### Wireless communications made easy

Get more freedom to work how you want, where you want with the wide range of Wi-Fi-certified IBM wireless PC offerings and services.

Select ThinkPad notebooks	Integrated 802.11b wireless technology with a dual-antenna system built into the display cover for increased signal strength.
Wireless accessories	Add wireless connectivity to any ThinkPad notebook without rewiring your network with the IBM High Rate Wireless LAN PC Card 128 and the IBM High Rate Wireless LAN Access Point 500 or IBM High Rate Wireless LAN Gateway.
Access Connections	Software to simply connect to your network, whether in the office or on the move, wired or wireless.

Security Subsystem2.0 work together to provide levels of security not previously available.Security chipHardware-based protection of critical security information including passwords, encryption keys, and electronic credentials helps to keep them safe from sniffers, Trojan Horses and other potential invaders.	The first to integrate a security chip in a PC $^{24}$	
including passwords, encryption keys, and electronic credentials helps to keep them safe from sniffers, Trojan Horses and other potential invaders.		5
IBM Client Security Provides the interface between security-aware application:	Security chip	credentials helps to keep them safe from sniffers,
<b>Software V. 2.0</b> and the functionality of the chip. In addition, it supports a variety of the latest peripheral security devices that control access to the notebook itself (downloadable).	•	a variety of the latest peripheral security devices that

# Additional servicesWarranty Service<br/>Upgrades25Up to three years onsite labor (now available anywhere<br/>in the continental U.S.) coverage from date of ThinkPad<br/>notebook purchase (including warranty period\*\*).<br/>Visit ibm.com/pc/services/ for applicable terms<br/>and conditions or call your authorized reseller for<br/>additional information.IBM Mobile and<br/>Wireless ServicesHelps customers turn wireless technology into tangible<br/>business advantage (U.S. only). Visit ibm.com/<br/>services/its/us/mobilew for more information.

\*\*See page 6 for additional warranty information<sup>19</sup>.

Visit **ibm.com**/pc/wireless for more information.

# "Big Blue has created a big winner with its ThinkPad X21. This system can easily morph from an ultimate ultralight into a loaded notebook dream machine."

-CNET Editors' Choice Award, 2001

### ThinkPad Proven solutions

Complementary to IBM options are additional third-party accessories from ThinkPad Proven<sup>™</sup> and WorkPad<sup>®</sup> Proven partners<sup>26</sup>. Proven products are tested, warranted and supported by the manufacturer to ThinkPad and WorkPad compatibility standards. Visit **ibm.com**/ww/thinkpad/proven for a complete list.

Apricorn, Inc.—EZ-FireDrive, the IEEE 1394 Hard Disk Drive for high-speed storage and backup (use with IBM IEEE 1394 CardBus Card option-19K5679)

**C-Pen**—600C/800C "electronic highlighter" which captures, edits, translates and sends text to your ThinkPad notebook via infrared or serial cable

Margi, Inc.—Display-to-Go 4MB PC Card adapter enables multiple display operation MobileStar Network Corporation and Wayport, Inc.— 802.11b wireless service providers (use with integrated 802.11b wireless technology or IBM High Rate Wireless LAN PC Card 128-09N9904) Novatel Wireless, Inc.—Merlin PC Card modem for CDPD for ThinkPad notebooks operates as a wireless wide-area Network Interface Card (NIC) or a Dial-Up Networking (DUN) modem interface (wireless service sold separately)

**PORT, Inc.**—carrying cases customized for ThinkPad X Series notebooks; ThinkPad Alpha Executive case and ThinkPad Alpha Rolling case





\*Tested, warranted and supported by manufacturer to WorkPad Compatibility Standards

### **Customize your ThinkPad notebook**

### UltraBase X2 media slice

### 08N1180



Removable storage in a snap travels light, with an integrated Ultrabay 2000. The UltraBase also includes a diskette drive, stereo speakers and additional ports and packs away neatly in checked luggage so it won't weigh you down.

### **IBM MicroPortable Data/Video Projector**

### 0037-A02



Travel light with one of the world's lightest projectors: weighing 3 lb with striking XGA (1024x768) resolution and bright, 1100 lumens. Or, choose the IBM ValueBased Data/Video Projector or IBM Conference Room Data/Video Projector.

### NE<sup>W!</sup> IBM 32MB USB Memory Key

22P5296



Carry presentations up to 32MB on your keychain with this unique, new storage option. Access from any USB-equipped system. Also available: IBM 8MB USB Memory Key.

### NE<sup>W!</sup> ThinkPad Ultraportable 56W AC Adapter

02K6880



Lighten your load with this smallest and lightest of IBM adapters. Or, keep one adapter at home and one in the office. Also keep the power flowing with a full line of IBM power accessories: batteries, adapters and chargers.

### NEW!

### **IBM USB Serial Parallel Adapter**



Slip an IBM USB Serial Parallel Adapter in your bag for easy connectivity to printers and PDAs.

### ThinkPad CD-RW/DVD Combo Ultrabay 2000 Drive





Combine two drives in one, slim form factor for low-cost, high-capacity read/write storage. Or, select from the expanding range of IBM ThinkPad Ultrabay 2000 devices, including: SuperDisk (LS-240), Zip 250MB, 8X/4X/24X<sup>27</sup> Max CD-RW and 8X-3X DVD-ROM drives.

### **IBM UltraPort Camera II**



Take digital pictures and video with the IBM UltraPort Camera II, designed to connect in a snap without cables. Accompanying software includes video e-mail, conferencing, image editing and security functions. Or, choose the IBM UltraPort Digital Array Microphone, IBM UltraPort Compact Flash Reader and Bluetooth UltraPort Module from IBM.

### **IBM High Rate Wireless LAN Access Point 500**



Add this "wireless bridge" between your existing wired Ethernet infrastructure and wireless-enabled clients. Also available: IBM High Rate Wireless LAN PC Card 128 and IBM High Rate Wireless LAN Gateway.

Options by IBM offers a wide range of accessories and upgrades designed to work with your ThinkPad notebook. For a complete list of options and compatibility information, visit **ibm.com**/options (U.S.) or **ibm.com**/pc/ca/accessories (Canada).

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- <sup>1</sup> Includes battery; weight may vary due to vendor components, manufacturing process and options.
- Thickness may vary at certain points on the system. Response times may vary. May exclude some holidays.
- For Mobile Intel Pentium III processors featuring Intel SpeedStep<sup>™</sup> technology, this denotes maximum performance mode; battery optimization mode is approximately 80% of maximum performance mode.
- <sup>5</sup> These model numbers achieved a Ziff Davis BatteryMark™ Version 4.0.1 Battery Rundown Time of the times shown above. This test was performed without independent verification by Ziff Davis Media, Inc.; Ziff Davis makes no representations or warranties as to these test results. A description of the environment under which the test was performed is available at 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.
- <sup>6</sup> ThinkPad R Series models support the ThinkPad Port Replicator only.
- As tested using the high flex modulus test.
- 8 Requires Internet access account, available
- separately.
- Alphanumeric typing keys are spaced 18.5mm vertically and 18.2mm horizontally, which is defined as full-size by ISO/IEC 15412 and key displacement (stroke) is 2.5mm
- <sup>10</sup> Requires compatible wireless-enabled peripherals, not included.
- <sup>11</sup> At processor speed.
- <sup>12</sup> GB equals 1,000,000,000 bytes when referring to hard disk drive capacity. Accessible capacity may be less.
- <sup>13</sup> Maximum memory varies depending on model and may require replacement of standard memory with optional maximum memory module.
- <sup>14</sup> Designed to be capable of receiving data at up to 56Kbps with compatible phone line and server equipment, and transmitting data at up to 31.2Kbps, Public networks currently limit download speeds to about 53Kbps. Actual speeds vary and are often less than the maximum possible.
- <sup>15</sup> Delivered with Windows 2000 or Windows XP Professional preloaded and a Recovery Partition on the hard disk drive.
- <sup>16</sup> Level of support varies by operating system. Operating systems not preloaded on the system may not provide full feature functionality. Please refer to ibm.com/pc/support and select Notebooks and PC Companions from the "Browse the Support Site" dropdown or enter your machine type and model number for more information.

- <sup>17</sup> Some software may differ from its retail version (if any) and may not include user manuals or all program functionality. Warranty, service and support for non-IBM products are provided directly to you by third parties, not IBM. IBM makes no representations or warranties regarding non-IBM products. For non-IBM software, applicable thirdparty software licenses may apply
- <sup>18</sup> Update Connector is available at no charge to registered ThinkPad customers during the limited warranty period. Line charges may apply.
- <sup>19</sup> For terms and conditions or a copy of the IBM Statement of Limited Warranty, call 1 800 772 2227 in the U.S. and in Canada, call 1 800 426 2255. Battery covered by a separate, one-year limited warranty
- <sup>20</sup> Registration is required at **ibm.com**/pc/support.
- <sup>21</sup> Available in those countries where IBM and IBM resellers sell and service ThinkPad products. Registration required. Service level is based on the standard service for ThinkPad notebooks in that particular country.
- 22 The customer may be asked certain diagnostic questions before a courier is sent. Your ThinkPad purchase includes this depot repair service, available in the U.S. during the warranty period.
- <sup>23</sup> These data migration solutions cannot be used for transfer of operating systems or applications.
- <sup>24</sup> As of August 10, 2001, IBM alone offers an embedded data-encrypting security subsystem on notebook systems.
- <sup>25</sup> These upgrades are available for machines used for business, professional, or trade purposes rather than personal, family or household purposes. Subject to IBM ServicePac Maintenance Service Agreement. The customer may be asked certain diagnostic questions before a technician is sent.
- <sup>26</sup> IBM makes no warranties, express or implied, regarding ThinkPad Proven or WorkPad Proven products and services, including any implied warranties of merchantability or fitness for a particular purpose.
- <sup>27</sup> CD and DVD drives list maximum rates; rates are variable and are often less than the maximum

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