IBM® ThinkPad® X23 - withdrawn

Type-model	Processor	MHz	Memory	Screen	Disk	Optical	Mini PCI Comm Bay	CDC: ethernet or Bluetooth™	Security Chip	Preload	Workhorse or Global model	Avail date
2662-DBU	Pentium® III	800	128MB	12.1" XGA	20GB[8]	None	Modem	10/100		Windows® XP Pro		Jan 2002
2662-D5U	Pentium III	800	128MB	12.1" XGA	20GB	None	Modem	10/100		Windows 2000		Jan 2002
2662-EBU	Pentium III	866	128MB	12.1" XGA	30GB	None	Modem	10/100		Windows XP Pro	W G	Jan 2002
2662-EEU	Pentium III	866	128MB	12.1" XGA	30GB	None	11b Wi-Fi[32]/modem	10/100		Windows XP Pro	W G	Jan 2002
2662-ELU	Pentium III	866	128MB	12.1" XGA	30GB	None	10/100/modem	Bluetooth		Windows XP Pro	W	Jan 2002
2662-EGU	Pentium III	866	128MB	12.1" XGA	30GB	None	11b Wi-Fi/modem	10/100	Yes	Windows XP Pro	W	Jan 2002
2662-E5U*	Pentium III	866	128MB	12.1" XGA	30GB	None	Modem	10/100		Windows 2000	W G	Jan 2002
2662-EDU	Pentium III	866	128MB	12.1" XGA	30GB	None	11b Wi-Fi/modem	10/100		Windows 2000	W G	Jan 2002
2662-E6U	Pentium III	866	128MB	12.1" XGA	30GB	None	10/100/modem	Bluetooth		Windows 2000	W	Jan 2002
2662-E7U	Pentium III	866	128MB	12.1" XGA	30GB	None	11b Wi-Fi/modem	10/100	Yes	Windows 2000	W	Jan 2002

Positioning	*Extra-light, extra-small ultraportable notebook; one spindle*
Processor	**Mobile Intel® Pentium® III Processor-M 800 or 866MHz with** enhanced Intel SpeedStep™ technology[1] and 133MHz frontside bus
L2 cache	**512KB** / on die (at processor speed) / ECC
Memory	**128MB** std / 640MB max[7] / SDRAM / non-parity / 133MHz / PC133 / 3.3v / one 144-pin SO-DIMM socket / 128MB integrated / 1 socket avail (128MB models)
Diskette drive	None standard / 3.5" 1.44MB integrated in optional UltraBase™ X2 media slice
CD or DVD-ROM	None standard / optional optical drive removable from optional UltraBase X2
Ultrabay™ 2000	Supports Ultrabay 2000 devices in optional Ultrabase X2 media slice or ThinkPad Dock
Disk	**20GB**[8] **or 30GB** / 4200 rpm / user upgradable / S.M.A.R.T. / ATA-100
Display	**12.1"** (308mm) **XGA (1024x768)** TFT color / Active Matrix / 150 nits
Graphics controller	**ATI™ Rage™ Mobility RADEON M6 / AGP 4X / 8MB** DDR-SDRAM / DDC2B
Graphics - external	External monitor to 1024x768 with16.7 million colors at 100Hz and up to 1600x1200
Keyboard	Standard-size[26] keys / 97% size of T Series / 85-key / 18.5mm pitch; 2.5mm stoke / ThinkPad Button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar[13]
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions
UltraPort™	UltraPort connector on top of display for options such as digital UltraPort Camera
Dimensions[3]	11" x 8.9" x .98"-1.2"; 279mm x 227mm x 25-30.2mm
Travel weight[2]	with battery: *Dxx:* 3.2 lbs; *E5x/EBx:* 3.5 lbs; *Others:* 3.6 lbs
Case material	**Titanium Composite** in the top cover for enhanced strength
Battery - type	*Dxx:* Li-Ion 4-cell / intelligent; *Exx:* Li-Ion 6-cell / intelligent
Battery - life[10]	*Dxx:* 2.7 hrs; *802.11b/Bluetooth models:* 4.4 hrs; *Others:* 4.6 hrs
Architecture	**Intel 830MP** chipset / 82830MP Graphics Memory Controller Hub (GMCH-M) / 82801CAM ICH3-M I/O Controller Hub (ATA-100/66 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (Ricoh® R5C476II CardBus controller, Mini PCI, ext expansion) / LPC bus 33MHz (PC87391 Super I/O for infrared [dock-based diskette, serial, parallel])
Port replicator	Optional **ThinkPad Port Replicator**
Media slice	Optional **UltraBase X2 media slice** (see right side)
Docking Station	Optional **ThinkPad Dock** (includes Ultrabay 2000 and half-size PCI slot)
Compact Flash slot	**Compact Flash slot** / 1 CF+ Type II / supports optional IBM Microdrive™
PC Card Std slot	One Type II / CardBus 32-bit / PCMCIA 2.1
Ports	Two USB (version 1.1) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard, or mouse ports
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable
Modem	*Some:* 56K[6] V.90 (V.92-designed[29]) Mini PCI modem card / Lucent® chip set
Wi-Fi[32]/modem	*Some:* Mini PCI Wi-Fi[32] wireless[4], Intersil® Prism 2.5 chipset, dual antennas in display cover, Wi-Fi-certified / 56K[6] V.90[29] modem combo, Lucent® chipset
10/100/modem	*Some:* 10/100 ethernet, 56K[6] V.90 modem combo Mini PCI card / IP Sec / Intel chipset
CDC	One Communications Daughter Card (CDC) socket / not customer accessible
Ethernet	*Some:* 10/100 ethernet on Communications Daughter Card / Intel® 82562ET chipset
Bluetooth™	*Some:* Bluetooth wireless technology / on CDC / power button near keyboard
Audio support	SoundBlaster Pro™-compatible / CS4299 AC97 codec / mono speaker / 0.5 watt / volume up, down, mute buttons / internal microphone / mic in / line in / headphone out
Security	Power-on password / dual hard disk password / supervisor pwrd / security keyhole
Security chip	*Some:* **IBM Embedded Security Subsystem**[33] / hardware key storage / multi-factor authentication / local file encryption / enhances VPN security[16]
Limited warranty[12]	**3 years**/1 year battery - EasyServ™[19] onsite pickup and delivery courier service
Service options[22]	Optional service upgrades provide up to three years of onsite or depot repair service coverage from date of ThinkPad purchase (including warranty period)

SOFTWARE[14]

Windows XP Pro models
- Microsoft® Windows® XP Professional
- ✧ Disk-to-Disk Recovery (in hidden Service Partition)

Windows 2000 models
- Microsoft Windows 2000 Professional[13]
- ● ConfigSafe®
- ✧ Disk-to-Disk Recovery (in hidden Service Partition)

INCLUDED SOFTWARE[14] (all)

Preloaded
- ● Access ThinkPad
  - Access Connections
  - Access Help
  - Access Support
- ● PC-Doctor™
- ● ThinkPad Utilities

Downloadable
- ● IBM Rapid Restore™ PC
- ● IBM Data Transfer
- ● Universal Manageability Services™
- ● IBM Update Connector™,[15]
- ● Client Security Software (for security chip)

License (CD not included)
- Lotus® SmartSuite® Millennium and Lotus Notes® Client 5.0

ULTRABASE X2 MEDIA SLICE OPTION

Left bay of UltraBase X2 supports most Ultrabay 2000 options:
- ● Optional CD-ROM, CD-RW, DVD-ROM, LS-120/240 SuperDisk, Zip 250MB, CD-RW/DVD Combo
- ● Optional HDD adapter; for 2nd disk

UltraBase X2 right bay contains:
- ● Standard diskette drive (fixed)

Other features
- ● Stereo speakers (1 watt)
- ● Security keyhole, UltraBase lock
- ● Serial and parallel ports
- ● Keyboard/mouse port

64 MB SO DIMM 133MHz NP SDRAM	19K4650	UltraBase X2 media slice	08N1180	56 watt AC Adapter
128 MB SO DIMM 133MHz NP SDRAM	19K4652	ThinkPad Port Replicator	02K8667	PC 2001-compliant
256 MB SO DIMM 133MHz NP SDRAM	19K4654	ThinkPad Dock	263120U	CIM and DMI 2.0-compliant
512 MB SO DIMM 133MHz NP SDRAM	19K4656	ThinkPad X20 Series Li-Ion Battery (6-cell)	02K6651	Local and remote asset manage ment via the IBM Universal Manageability solutions
USB Portable Diskette Drive	05K9276	Multiple Li-Ion/NiMH Battery Charger	02K6719	
Portable CD-RW Drive	22P5297	ThinkPad Ultraportable 56W AC Adapter	02K6880	Setup Guide, Service and Trouble-shooting Guide, Windows manual
Portable Drive Bay 2000	19K4480	ThinkPad 72W AC Adapter	02K6699	
		IBM USB Serial Parallel Adapter	22P5298	IBM ImageUltra™ Services available
Ultrabay 2000 interchangeable accessories:		IBM UltraPort Camera II	04P6135	IBM Rapid Restore PC available to protect software image and data
SuperDisk (LS-240) UltraBay 2000	08K9616	IBM IEEE 1394 CardBus Card	19K5679	
Zip 250MB Ultrabay 2000 Drive	00N8253	IBM 32MB USB Memory Key	22P5296	International Warranty Service[17]
24X-10X CD-ROM Ultrabay 2000 Drive	05K9233	20GB Hard Disk 9.5mm (4200 rpm)	08K9686	24 hour x 7 day[18] toll-free hardware support during the warranty[12]
8X/4X/24X Max CD-RW Ultrabay 2000	22P9101	40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816	
Ultralight 8X Max DVD Ultrabay 2000	22P9102	80GB Hard Disk 9.5mm (4200 rpm)	08K9869	
CD-RW/DVD Combo III Ultrabay 2000	22P6980	ServicePac®,[22] 2yr IOR 9x5 NBD	30L9190	
Travel Bezel for Ultrabay 2000	08K6070	ServicePac 3yr IOR 9x5 NBD	30L9197	
Second HDD Adapter for Ultrabay 2000	08K6068	Other options at **ibm.com**/pc/us/accessories		

See footnotes for important warranty information

US models announced January 23, 2002; US models withdrawn effective July 2002 or July 2003

* Special ordering only