

Type-model	Processor	Speed	Memory	Screen	Disk	Ultrabay optical	Mini PCI	CDC Ethernet	CDC Modem	Security Chip	Preload	Workhorse or Global model	Avail date
2652-D3U	Pentium® 4-M	1.6GHz	256MB	15" SXGA+	40GB ⁸ DVD/CD-RW	Open		10/100	Modem		Windows® XP Pro	No	Mar 2002
2652-D4U	Pentium 4-M	1.6GHz	256MB	15" SXGA+	40GB DVD/CD-RW	Open		10/100	Modem		Windows 2000	No	Mar 2002
2652-D5U	Pentium 4-M	1.6GHz	256MB	15" SXGA+	40GB DVD/CD-RW	Wi-Fi ³² /mod		10/100	Open	Yes	Windows XP Pro	No	Mar 2002
2652-D6U	Pentium 4-M	1.6GHz	256MB	15" SXGA+	40GB DVD/CD-RW	Wi-Fi/mod		10/100	Open	Yes	Windows 2000	No	Mar 2002
<div>Positioning Processor<div>High-performance desktop alternatives with exceptional versatility; three spindle Mobile Intel® Pentium® 4 Processor-M 1.6GHz with enhanced Intel SpeedStep™ technology²¹ and 400MHz frontside bus</div></div> <div>L2 cache Memory<div>512KB / on die (at processor speed) / ECC 256MB std / 1GB max⁷ / PC2100 266MHz³⁰ DDR-SDRAM / non-parity / 2.5v / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available</div></div> <div>Diskette drive DVD-ROM/CD-RW Modular bays<div>None standard / use optional Ultrabay™-based or USB-based diskette drive Combo / 8X/8X/24X/8X²¹ speed / bootable / removable from Ultrabay Plus Two modular bays for interchangeable devices / Ultrabay 2000 (left side) and Ultrabay Plus (right side) / Ultrabay 2000 left bay empty at ship (uses Travel Bezel)</div></div> <div>Disk (removable)<div>40GB⁸ / upgradeable / S.M.A.R.T. / supports two additional disks with optional HDD adapter in each modular bay</div></div> <div>Display<div>15.0" (381mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200:1 contrast</div></div> <div>Graphics controller Graphics - external<div>ATI® Mobility™ Radeon™ 7500 / AGP 4X / 32MB DDR-SDRAM 166MHz External monitor support via analog DB-15 connector / up to 2048x1536x16.7M colors at 75Hz / DDC2B / supports external digital monitor⁵ via the Digital Video Interface (DVI) port on either of the optional docking solutions</div></div> <div>Keyboard<div>87-key / Web navigation keys (6 total, 3 customizable) / ThinkPad Button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar / pitch: 19mm; stroke: 2.7mm</div></div> <div>ThinkLight™ UltraPort™<div>Illuminates the keyboard to improve visibility in low-light conditions None</div></div> <div>Case material<div>Color: black; Top: ABS plastic; Bottom: glass-fiber reinforced plastic</div></div> <div>Dimensions³ Approximate weight² Battery - type Battery - life¹⁰<div>Approximately 13.0 x 10.7 x 1.8"; 329mm x 272.5mm x 45.8mm with battery and optical drive: 7.6 lb (3.45kg) Lithium Ion 6-cell 10.8V 4.0Ah / intelligent / supports 2nd battery in Ultrabay 2000 2.3 hours / universal 72 watt AC adapter (16Vdc 4.5A)</div></div> <div>Architecture<div>Intel 845MP chipset / 82845MP Memory Controller Hub (MCH-M) / 82801CAM ICH3-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB [Bluetooth], Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (Ricoh® R5C552 CardBus/1394 combo controller, Mini PCI, ext expansion) / LPC bus 33MHz (PC87392 Super I/O for diskette, serial, parallel, infrared)</div></div> <div>Port replicator Docking Station PC Card Std slots Ports<div>Optional ThinkPad Port Replicator Optional ThinkPad Dock (includes Ultrabay 2000 and half-size PCI slot) 2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / PCMCIA 2.1 / no Zoomed Video Two USB (version 1.1) / one 9-pin serial / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse</div></div> <div>Video out IEEE 1394 Mini PCI Wi-Fi³²/modem<div>S-video out port (TV out) / industry standard connector / no cable ships standard None One Mini PCI IIIB slot (Communications Bay) / customer upgradeable Some: Mini PCI Wi-Fi³² wireless⁴, Intersil® Prism 2.5 chipset, dual antennas in display cover / 56K⁶ V.90 (V.92-designed²⁹)modem combo, Lucent® chipset</div></div> <div>CDC Modem Ethernet Bluetooth™<div>Two Communications Daughter Card (CDC) sockets / customer accessible Some: 56K⁶ V.90 (V.92-designed²⁹) CDC modem card / Lucent® chip set 10/100 ethernet on CDC / Intel82562ET chipset (physical layer) None</div></div> <div>Audio support<div>SoundBlaster Pro™-compatible / AD1881A AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / mic input jack / output jack / line in jack</div></div> <div>Security Security chip<div>Power-on password / hard disk password / supervisor password / security keyhole / Some: IBM Embedded Security Subsystem³³ / hardware key storage / multi-factor authentication / local file encryption / enhances VPN security¹⁶</div></div> <div>Limited warranty¹² Service options<div>1 year - EasyServ™¹⁹ onsite pickup and delivery courier service Service upgrades²² provide up to three years of onsite or depot repair service coverage from date of ThinkPad purchase (including warranty period)</div></div>												<div>SOFTWARE¹⁴<div>Windows XP Pro models<div>- Microsoft® Windows® XP Professional</div>✧ Disk-to-Disk Recovery (in hidden Service Partition)</div><div>Windows 2000 models<div>- Microsoft Windows 2000 Professional¹³</div>• ConfigSafe®</div>✧ Disk-to-Disk Recovery (in hidden Service Partition)</div> <div>INCLUDED SOFTWARE¹⁴ (all)<div>Preloaded<div>• Access ThinkPad</div><div>- Access Connections</div><div>- Access Help</div><div>- Access Support</div><div>• Adobe Acrobat Reader</div><div>• InterVideo™ Win DVD</div><div>• PC-Doctor™</div><div>• ThinkPad Utilities</div><div>• IBM Update Connector™¹⁵</div><div>• Veritas RecordNOW</div></div><div>Downloadable<div>• IBM Rapid Restore™ PC</div><div>• IBM Data Transfer</div><div>• Client Security Software (for security chip)</div><div>• IBM Director Agent</div></div><div>License<div>- Lotus® SmartSuite® Millennium and Lotus Notes® Client 5.0</div></div></div> <div>Ultrabay Plus integrated modular bay supports most Ultrabay 2000 devices including CD-RW/DVD Combo II drive, diskette drive, or Zip drive; the optional Ultrabay Plus Device Carrier adds potential functionality by supporting the Ultrabay Plus Numeric Keypad and Cradle for the WorkPad® c500 Series</div>	
128 MB PC2100 DDR-SDRAM CL2.5 SOD 10K0028 256 MB PC2100 DDR-SDRAM CL2.5 SOD 10K0030 512 MB PC2100 DDR-SDRAM CL2.5 SOD 10K0032 Second HDD Adapter for Ultrabay 2000 08K6068 20GB Hard Disk Drive 08K9686 40GB Hard Disk Drive 08K9687 60GB HS Hard Disk Drive (5400 rpm) 08K9688 ThinkPad Removable Diskette Drive 08K9603 SuperDisk (LS-240) UltraBay 2000 08K9616 Zip 250MB Ultrabay 2000 Drive 00N8253 8X/4X/24X Max CD-RW Ultrabay 2000 22P9101 Ultralight 8X Max DVD Ultrabay 2000 22P9102 DVD/CD-RW Combo II Ultrabay 2000 08K9701 Travel Bezel for Ultrabay 2000 08K6070 ThinkPad A30 Series Li-Ion Battery 02K6878 Ultrabay 2000 Li-Ion battery 02K6646 ThinkPad 72W AC Adapter 02K6699 Multiple Li-Ion/NiMH Battery Charger 02K6719												IBM ThinkPad Ultrabay Plus Carrier 22P5737 IBM ThinkPad Ultrabay Plus c500 Cradle 22P5738 ThinkPad Ultrabay Plus Numeric Keypd 22P7330 ThinkPad Port Replicator 02K8667 ThinkPad Dock 263120U IBM USB Slek Mouse 33L3244 IBM USB Numeric Keypad 33L3225 IBM USB 32MB Memory Key 22P5296 Portable Drive Bay 2000 19K4480 10/100 EtherJet™ CardBus Adapter 08L3147 10/100 Enet/56K Mini PCI (3Com) 09N9774 ServicePac®, ²² 1yr IOR 9x5 NBD 30L9188 ServicePac 2yr IOR 9x5 NBD 30L9189 ServicePac 3yr IOR 9x5 NBD 30L9195 ServicePac 2yr P&L P/U Depot 30L9191 ServicePac 3yr P&L P/U Depot 30L9192 Other options at ibm.com/us/pc/accessories	PC 2001-compliant ACPI 1.0b and 2.0 support CIM and DMI 2.0-compliant IBM ImageUltra Services available IBM Rapid Restore PC available to protect software image and data Setup Guide, Service and Troubleshooting Guide, Windows manual Personalized Web-based support ³¹ Proactive e-mail updates ³¹ International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free hardware support during the warranty

See footnotes for important warranty information
 US models announced March 5, 2002
 US models withdrawn effective July 2002

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Type-model	Processor	Speed	Memory	Screen	Disk	Ultrabay optical	Mini PCI wireless/modem	CDC ethernet	CDC Security modem chip	Preload	Small business	Workhorse or Global model	Avail date
2652-C3U	Pentium® 4-M	1.6GHz	256MB	15" XGA	30GB ⁸	CD-RW	Open	10/100	Modem	XP Pro		W G	Apr 2002
2652-C4U	Pentium 4-M	1.6GHz	256MB	15" XGA	30GB	CD-RW	Open	10/100	Modem	2000		W G	Apr 2002
2652-C5U	Pentium 4-M	1.6GHz	256MB	15" XGA	30GB	CD-RW	11b Wi-Fi ³² /mod	10/100	Open Yes	XP Pro		W G	Apr 2002
2652-C6U	Pentium 4-M	1.6GHz	256MB	15" XGA	30GB	CD-RW	11b Wi-Fi/mod	10/100	Open Yes	2000		W G	Apr 2002
2652-CTU	Pentium 4-M	1.6GHz	256MB	15" XGA	30GB	CD-RW	Open	10/100	Modem	2000	XP Office ²⁸	W	Apr 2002
Positioning Processor	High-performance desktop alternatives with exceptional versatility; three spindle Mobile Intel® Pentium® 4 Processor-M 1.6GHz with enhanced Intel SpeedStep™ technology ¹ and 400MHz frontside bus									SOFTWARE ¹⁴			
L2 cache	512KB / on die (at processor speed) / ECC									Windows XP Pro models			
Memory	256MB std / 1GB max ⁷ / PC2100 266MHz ³⁰ DDR-SDRAM / non-parity / 2.5v / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available									- Microsoft® Windows® XP Professional ²⁰ ✧ Disk-to-Disk Recovery (in hidden Service Partition)			
Diskette drive	None standard / use optional Ultrabay™-based or USB-based diskette drive									Windows 2000 models			
CD-RW	CD-RW / 8X/4X/24X ⁹ speed / bootable / removable from Ultrabay Plus									- Microsoft Windows 2000 Professional ²⁰			
Modular bays (both 12.7mm)	Two modular bays for interchangeable devices / Ultrabay 2000 (left side) and Ultrabay Plus (right side) / Ultrabay 2000 left bay empty at ship (uses Travel Bezel)									• ConfigSafe® ✧ Disk-to-Disk Recovery (in hidden Service Partition)			
Disk (removable)	30GB ⁸ / upgradable / S.M.A.R.T. / 12.5mm bay / supports two additional disks with optional HDD adapter in each modular bay									INCLUDED SOFTWARE ¹⁴ (all)			
Display	15.0" (381mm) XGA (1024x768) TFT color / Active Matrix / 200:1 contrast									Preloaded			
Graphics controller	ATI® Mobility™ RADEON™ 7500 / AGP 4X / 16MB DDR-SDRAM 166MHz									• Access ThinkPad			
Graphics - external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M colors at 75Hz / DDC2B / supports external digital monitor via the Digital Video Interface (DVI) port on either of the optional docking solutions									- Access Connections - Access Support - Access Help			
Keyboard	87-key / Web navigation keys (6 total, 3 customizable) / ThinkPad Button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / pitch: 19mm; stroke: 2.7mm									• Adobe Acrobat Reader			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions									• PC-Doctor™			
UltraPort™	None									• ThinkPad Utilities			
Case material	Color: Black; Top: ABS plastic; Bottom: glass-fiber reinforced plastic									• IBM Update Connector™.15			
Dimensions ³	Approximately 13.0 x 10.7 x 1.8-1.9"; 329mm x 272.5mm x 44.6-46.8mm									• IBM RecordNOW by Veritas®			
Approximate weight ²	with battery and optical drive: 7.5 lb (3.45kg)									Downloadable			
Battery - type	Lithium Ion 6-cell 10.8V 4.0Ah / intelligent / supports 2nd battery in Ultrabay 2000									• IBM Rapid Restore™ PC			
Battery - life ¹⁰	2.5 hours / universal 72 watt AC adapter (16Vdc 4.5A)									• IBM Data Transfer			
Architecture	Intel 845MP chipset / 82845MP Memory Controller Hub (MCH-M) / 82801CAM ICH3-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (Ricoch® R5C552 CardBus/1394 combo controller, Mini PCI, ext expansion) / LPC bus 33MHz (PC87392 Super I/O for diskette, serial, parallel, infrared)									• Client Security Software (for security chip)			
Port replicator	Optional ThinkPad Port Replicator									• IBM Director Agent			
Docking Station	Optional ThinkPad Dock (includes Ultrabay 2000 and half-size PCI slot)									License (CD not included)			
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door									- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Ports	Two USB (version 1.1) / one 9-pin serial / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse									Office XP Small Business model only (2652-CTU)			
Video out	S-video out port (TV out) / industry standard connector / no cable ships standard									- Microsoft Office XP Small Business ²⁸ (Word, Excel, Outlook, Publisher, Small Business Tools)			
IEEE 1394	None									✧ Office XP Small Business CD			
Mini PCI	One Mini PCI IIIb slot (Communications Bay) / customer upgradable									Ultrabay Plus integrated modular bay supports most Ultrabay 2000 devices including CD-RW/DVD Combo II drive, diskette drive, or Zip drive; the optional Ultrabay Plus Device Carrier adds potential functionality by supporting the Ultrabay Plus Numeric Keypad and Cradle for the WorkPad® c500 Series			
11b Wi-Fi ³² /mod	Some: Mini PCI 11b Wi-Fi ³² wireless ⁴ , Intersil® Prism 2.5 chipset, dual antennas in display cover, Wi-Fi certified / 56K ²⁹ V.90 (V.92-designed ²⁹) modem combo, Lucent® chipset												
CDC	Two Communications Daughter Card (CDC) sockets / customer accessible												
Modem	Some: 56K ²⁹ V.90 (V.92-designed ²⁹) CDC modem card / Lucent® chip set												
Ethernet	10/100 ethernet on CDC / Intel82562ET chipset (physical layer)												
Audio support	SoundBlaster Pro™-compatible / AD1881A AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / mic input jack / output jack / line in jack												
Security	Power-on password / hard disk password / supervisor password / security keyhole /												
Security chip	Some: IBM Embedded Security Subsystem ³³ / hardware key storage / mult-factor authentication / local file encryption / enhances VPN security ¹⁶												
Limited warranty ¹²	1 year - EasyServ™.19 onsite pickup and delivery courier service												
Service options	Service upgrades ²² provide up to five years of onsite or depot repair service coverage from date of ThinkPad purchase (including warranty period)												
128 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0028	IBM ThinkPad Ultrabay Plus Carrier						22P5737	PC 2001-compliant				
256 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0030	IBM ThinkPad Ultrabay Plus c500 Cradle						22P5738	ACPI 1.0b and 2.0 support				
512 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0032	ThinkPad Ultrabay Plus Numeric Keypd						22P7330	CIM and DMI 2.0-compliant				
Second HDD Adapter for Ultrabay 2000	08K6068	ThinkPad Port Replicator						02K8667	IBM ImageUltra™ Services available				
20GB Hard Disk 9.5mm (4200 rpm)	08K9686	ThinkPad Dock						263120U	IBM Rapid Restore PC available to protect software image and data				
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816	Optical 3-Button Travel Wheel Mouse						31P7410	Setup Guide, Service and Trouble-				
IBM 256MB USB 2.0 Memory Key	22P9025	IBM USB Numeric Keypad						33L3225	shooting Guide, Windows manual				
ThinkPad Removable Diskette Drive	08K9603	IBM USB 32MB Memory Key						22P5296	International Warranty Service ¹⁷				
SuperDisk (LS-240) UltraBay 2000	08K9616	Portable Drive Bay 2000						19K4480	24 hour x 7 day ¹⁸ toll-free hardware support during the warranty ¹²				
Zip 250MB Ultrabay 2000 Drive	00N8253	10/100 EtherJet™ CardBus Adapter						08L3147					
Ultralight 8X Max DVD Ultrabay 2000	22P9102	ServicePac ²² 1yr IOR 9x5 NBD						30L9188					
DVD/CD-RW Combo III Ultrabay 2000	22P6980	ServicePac 2yr IOR 9x5 NBD						30L9189					
Travel Bezel for Ultrabay 2000	08K6070	ServicePac 3yr IOR 9x5 NBD						30L9195					
ThinkPad A30 Series Li-Ion Battery	02K6878	ServicePac 2yr P&L P/U Depot						30L9191					
Ultrabay 2000 Li-Ion battery	02K6646	ServicePac 3yr P&L P/U Depot						30L9192					
ThinkPad 72W AC Adapter	02K6699	Other options at ibm.com/us/pc/accessories											
Multiple Li-Ion/NiMH Battery Charger	02K6719												

See footnotes for important warranty information
 US models announced April 23, 2002
 US models withdrawn effective August 2003

See footnotes for important warranty information
US models announced March 12, 2003; previous models on June 4, 2002
US models withdrawn effective April or October 2003

Type-model	Processor	Speed	Memory	Screen	Disk	Ultrabay optical	Mini PCI wireless/modem	CDC ethernet	CDC modem	Security chip	Preload	Small business	Workhorse or Global model	Avail date
2652-P3U	Pentium® 4-M	1.9GHz	256MB	15" XGA	30GB ⁸	DVD	Open	10/100	Modem		XP Pro 2000		W G	Sep 2002
2652-P4U	Pentium 4-M	1.9GHz	256MB	15" XGA	30GB	DVD	Open	10/100	Modem					Sep 2002
2652-P5U	Pentium 4-M	1.9GHz	256MB	15" XGA	30GB	DVD	11b Wi-Fi ³² /mod	10/100	Open	Yes	XP Pro 2000		W G	Sep 2002
2652-P6U	Pentium 4-M	1.9GHz	256MB	15" XGA	30GB	DVD	11b Wi-Fi/mod	10/100	Open	Yes				Sep 2002
2652-PTU	Pentium 4-M	1.9GHz	256MB	15" XGA	30GB	DVD	Open	10/100	Modem		2000	Office XP SB ²⁸		Sep 2002

Positioning Processor	High-performance desktop alternatives with exceptional versatility; three spindle Mobile Intel® Pentium® 4 Processor-M 1.9GHz with enhanced Intel SpeedStep™ technology ¹ and 400MHz frontside bus										SOFTWARE¹⁴ Windows 2000 models - Microsoft® Windows® 2000 Professional ²⁰ ◆ ConfigSafe® ◆ Disk-to-Disk Recovery (in hidden Service Partition) Windows XP Pro models - Microsoft Windows XP Professional ²⁰ ◆ Disk-to-Disk Recovery (in hidden Service Partition)			
L2 cache	512KB / on die (at processor speed) / ECC													
Memory	256MB std / 1GB max ⁷ / PC2100 DDR-SDRAM / non-parity / 266MHz ³⁰ / 2.5v / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										INCLUDED SOFTWARE¹⁴ (all) Preloaded • Access ThinkPad - Access Connections - Access Support - Access Help • Adobe Acrobat Reader • PC-Doctor™ • ThinkPad Utilities • IBM Update Connector™ ¹⁵ • IBM Veritas®RecordNOW and DLA (combo models) Downloadable • IBM Rapid Restore™ PC • Software Delivery Assistant • System Migration Assistant • IBM Director Agent • Client Security Software (security chip models) License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client Office XP Small Business model only (2652-PTU) - Microsoft Office XP Small Business ²⁸ (Word, Excel, Outlook, Publisher, Small Business Tools) ◆ Office XP Small Business CD			
Diskette drive	None standard / use optional Ultrabay™-based or USB-based diskette drive													
DVD-ROM	DVD-ROM / 8X-3.3X ⁹ speed / bootable / removable from Ultrabay Plus													
Modular bays (both 12.7mm)	Two modular bays for interchangeable devices / Ultrabay 2000 (left side) and Ultrabay Plus (right side) / Ultrabay 2000 left bay empty at ship (uses Travel Bezel)													
Disk (removable)	30GB ⁸ / upgradable / S.M.A.R.T. / 12.5mm bay / supports two additional disks with optional HDD adapter in each modular bay													
Display	15.0" (381mm) XGA (1024x768) TFT color / Active Matrix / 200:1 contrast													
Graphics controller	ATI® Mobility™ RADEON™ 7500 / AGP 4X / DDR-SDRAM 166MHz / 16MB													
Graphics - external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M colors at 75Hz / DDC2B / supports external digital monitor via the Digital Video Interface (DVI) port on either of the optional docking solutions													
Keyboard	87-key / Web navigation keys (6 total, 3 customizable) / ThinkPad Button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / pitch: 19mm; stroke: 2.7mm													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions / no UltraPort™													
Case material	Color: Black; Top: ABS plastic; Bottom: Glass-fiber reinforced plastic													
Dimensions ³	Approximately 13.0 x 10.7 x 1.8"; 329mm x 272.5mm x 45.8mm													
Approximate weight ²	with battery and optical drive: 7.5 lb (3.4kg)													
Battery - type	Lithium Ion 6-cell 10.8V 4.0Ah / intelligent / supports 2nd battery in Ultrabay 2000													
Battery - life ¹⁰	2.5 hr; All: universal 72 watt AC adapter (16Vdc 4.5A)													
Architecture	Intel 845MP chipset / 82845MP Memory Controller Hub (MCH-M) / 82801CAM ICH3-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (Ricoch® R5C552 CardBus/1394 combo controller, Mini PCI, ext expansion) / LPC bus 33MHz (PC87392 Super I/O for diskette, serial, parallel, infrared)													
Docking Station	Optional ThinkPad Dock (includes Ultrabay 2000 and half-size PCI slot)													
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door													
Ports	Two USB (version 1.1) / one 9-pin serial / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard/mouse													
Video out	S-video out port (TV out) / industry standard connector / no cable ships standard													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
11b Wi-Fi ³² /mod	Some: Mini PCI 11b Wi-Fi ³² wireless ⁴ , Intersil® Prism 2.5 chipset, dual antennas in display cover, Wi-Fi certified / 56K ²⁹ V.90 (V.92-designed ²⁹) modem combo, Agere® chipset													
CDC	Two Communications Daughter Card (CDC) sockets / customer accessible													
Modem	Some: 56K ²⁹ V.90 (V.92-designed ²⁹) CDC modem card / Agere® chipset													
Ethernet	10/100 ethernet on CDC / Intel 82562ET chipset (physical layer)													
Audio support	SoundBlaster Pro™-compatible / AD1881A AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / mic input jack / output jack / line in jack													
Security	Power-on password / hard disk password / supervisor password / security keyhole / Some: IBM Embedded Security Subsystem ³³ / hardware key storage / multi-factor authentication / local file encryption / enhances VPN security ¹⁶ / TCPA-compliant													
Limited warranty ¹²	1 year - EasyServ™ ¹⁹ onsite pickup and delivery courier service													
Service options	Service upgrades ²² provide up to five years of onsite or depot repair service coverage from date of ThinkPad purchase (including warranty period)													

128 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0028	ThinkPad A30 Series Li-Ion Battery	02K6878	Ultrabay Plus integrated modular bay supports most Ultrabay 2000 devices including CD-RW/DVD Combo II drive, diskette drive, or Zip drive; the optional Ultrabay Plus Device Carrier adds potential functionality by supporting the Ultrabay Plus Numeric Keypad and Cradle for the WorkPad® c500 Series PC 2001-compliant ACPI 1.0b and 2.0 support CIM and DMI 2.0-compliant IBM ImageUltra™ Services available IBM Rapid Restore PC available to protect software image and data Setup Guide, Service and Trouble-shooting Guide, Windows manual International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free hardware support during the warranty ¹²
256 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0030	Ultrabay 2000 Li-Ion battery	02K6646	
512 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0032	Multiple Li-Ion/NiMH Battery Charger	02K6719	
Second HDD Adapter for Ultrabay 2000	08K6068	ThinkPad 72W AC Adapter	02K6699	
20GB Hard Disk Drive	08K9686	ThinkPad Ultrabay Plus Carrier	22P5737	
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816	ThinkPad Ultrabay Plus Numeric Keypd	22P7330	
IBM 256MB USB 2.0 Memory Key	22P9025	ThinkPad Port Replicator	02K8667	
IBM USB Portable Diskette Drive	05K9276	ThinkPad Dock	263120U	
ThinkPad Removable Diskette Drive	08K9603	IBM Optical Travel Wheel Mouse (black)	31P7410	
SuperDisk (LS-240) UltraBay 2000	08K9616	IBM 1GB Microdrive	07N5574	
Zip 250MB Ultrabay 2000 Drive	00N8253	ServicePac®, 22 1yr IOR 9x5 NBD	30L9188	
Ultralight 8X ⁹ Max DVD Ultrabay 2000	22P9102	ServicePac 2yr IOR 9x5 NBD	30L9189	
DVD/CD-RW Combo III Ultrabay 2000	22P6980	ServicePac 3yr IOR 9x5 NBD	30L9195	
Travel Bezel for Ultrabay 2000	08K6070	ServicePac 4yr IOR 9x5 NBD	69P9194	
Portable Drive Bay 2000	19K4480	ServicePac 5yr IOR 9x5 NBD	69P9196	
IBM 128MB USB 2.0 Memory Key	22P8998	ServicePac 2yr P&L P/U Depot	30L9191	
IBM Portable USB 2.0 CD-RW Drive	22P5297	ServicePac 3yr P&L P/U Depot	30L9192	
ThinkPad USB 2.0 CardBus Adapter	33L3245	ServicePac 4yr P&L P/U Depot	69P9195	
IBM MicroPortable Data/Video Projector	0037A02	ServicePac 5yr P&L P/U Depot	69P9197	
IBM High Rate Wireless LAN PC Card 128	09N9904	Other options at ibm.com/us/pc/accessories		

See footnotes for important warranty information
 US models announced August 27, 2002
 US models withdrawn effective October 2003

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Type-model	Processor	Speed	Memory	Screen	Graphics memory	Disk	Ultrabay optical	Mini PCI wireless/modem	CDC ethernet	CDC Security modem chip	Preload	Workhorse or Avail Global model	date
2652-P8U	Pentium® 4-M	2.0GHz	128MB	14.1" XGA	16MB	20GB ⁸	CD	Open	10/100	Modem	XP Pro	Jan 2003	
2652-P9U	Pentium 4-M	2.0GHz	128MB	14.1" XGA	16MB	20GB	CD	11b Wi-Fi ³² /modem	10/100	Modem	XP Pro	Jan 2003	
2652-PBU	Pentium 4-M	2.0GHz	256MB	15.0" XGA	16MB	40GB	Combo	Open	10/100	Open	XP Pro	W Jan 2003	
2652-PCU	Pentium 4-M	2.0GHz	256MB	15.0" XGA	16MB	40GB	Combo	11b Wi-Fi/modem	10/100	Open	Yes XP Pro	W Jan 2003	
2652-Q3U	Pentium 4-M	2.0GHz	256MB	15.0" SXGA+	32MB	40GB	Combo	Open	10/100	Open	XP Pro	Jan 2003	
2652-Q5U	Pentium 4-M	2.0GHz	256MB	15.0" SXGA+	32MB	40GB	Combo	11b Wi-Fi/modem	10/100	Open	Yes XP Pro	Jan 2003	
2652-PEU	Pentium 4-M	2.0GHz	128MB	14.1" XGA	16MB	20GB	CD	Open	10/100	Open	XP Home	Jan 2003	
Positioning Processor	High-performance desktop alternatives with exceptional versatility; three spindle Mobile Intel® Pentium® 4 Processor-M 2.0GHz with enhanced Intel SpeedStep™ technology ¹ and 400MHz frontside bus									SOFTWARE ¹⁴			
L2 cache	512KB / on die (at processor speed) / ECC									Windows XP Pro models			
Memory	128 or 256MB std / 1GB max ⁷ / PC2100 DDR-SDRAM / non-parity / 266MHz ³⁰ / 2.5v / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available									- Microsoft® Windows® XP Professional ²⁰ ♦ Disk-to-Disk Recovery (in hidden Service Partition)			
Diskette drive	None standard / use optional Ultrabay™-based or USB-based diskette drive									Windows XP Home models			
CD-ROM	Some: CD-ROM / 24X-10X ⁹ speed / bootable / removable from Ultrabay Plus									- Microsoft Windows XP Home Edition ²⁰			
Combo	Some: Combo / 16X/8X/24X/8X ²¹ speed / bootable / removable from Ultrabay Plus									• ConfigSafe®			
Modular bays (both 12.7mm)	Two modular bays for interchangeable devices / Ultrabay 2000 (left side) and Ultrabay Plus (right side) / Ultrabay 2000 left bay empty at ship (uses Travel Bezel)									♦ Disk-to-Disk Recovery (in hidden Service Partition)			
Disk (removable)	20 or 40GB ⁸ , 4200 rpm, 9.5mm / upgradable / S.M.A.R.T. / 12.5mm bay / supports two additional disks with optional HDD adapter in each modular bay									INCLUDED SOFTWARE ¹⁴ (all)			
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 200:1 contrast Some: 15.0" (381mm) XGA (1024x768) TFT color / Active Matrix / 200:1 contrast Some: 15.0" (381mm) SXGA+ (1400x1050) TFT color / Active Matrix / 400:1 cont / FlexView display with wide viewing angle and high density (IPS technology)									Preloaded			
Graphics controller	ATI® Mobility™ RADEON™ 7500 / AGP 4X / DDR-SDRAM 166MHz / 16 or 32MB									• Access ThinkPad			
Graphics - external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M colors at 75Hz / DDC2B / supports external digital monitor via the Digital Video Interface (DVI) port on either of the optional docking solutions									- Access Connections			
Keyboard	87-key / Web navigation keys (6 total, 3 customizable) / ThinkPad Button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / pitch: 19mm; stroke: 2.7mm									- Access Support			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions / no UltraPort™									- Access Help			
Case material	Color: Black; Top: ABS plastic; Bottom: Glass-fiber reinforced plastic									• Adobe Acrobat Reader			
Dimensions ³	Approximately 13.0 x 10.7 x 1.8"; 329mm x 272.5mm x 45.8mm									• PC-Doctor™			
Approximate weight ²	with battery and optical drive: 7.5 lb (3.4kg)									• ThinkPad Utilities			
Battery - type	Lithium Ion 6-cell 10.8V 4.0Ah / intelligent / supports 2nd battery in Ultrabay 2000									• IBM Update Connector™ ¹⁵			
Battery - life ¹⁰	PCU/Q3U/Q5U: 2.3 hr; Others: 2.5 hr; All: universal 72 watt AC adapter (16Vdc 4.5A)									• IBM Veritas® RecordNOW and DLA (combo models)			
Architecture	Intel 845MP chipset / 82845MP Memory Controller Hub (MCH-M) / 82801CAM ICH3-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (Ricoh® R5C552 CardBus/1394 combo controller, Mini PCI, ext expansion) / LPC bus 33MHz (PC87392 Super I/O for diskette, serial, parallel, infrared)									Downloadable			
Docking Station	Optional ThinkPad Dock (includes Ultrabay 2000 and half-size PCI slot)									• IBM Rapid Restore™ PC			
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door									• Software Delivery Assistant			
Ports	Two USB (version 1.1) / one 9-pin serial / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard/mouse									• System Migration Assistant			
Video out	S-video out port (TV out) / industry standard connector / no cable ships standard									• IBM Director Agent			
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable									• Client Security Software (security chip models)			
11b Wi-Fi ³² /mod	Some: 11b Wi-Fi ³² wireless ⁴ , Mini PCI, Intersil® Prism 2.5 chipset, UltraConnect™ antenna built in both sides of display, Wi-Fi certified / 56K ²⁹ V.90 (V.92-designed ²⁹) modem combo, Agere® chipset									License (CD not included)			
CDC	Two Communications Daughter Card (CDC) sockets / customer accessible									- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Modem	Some: 56K ²⁹ V.90 (V.92-designed ²⁹) CDC modem card / Agere® chipset									PC 2001-compliant			
Ethernet	10/100 ethernet on CDC / Intel 82562ET chipset (physical layer)									ACPI 1.0b and 2.0 support			
Audio support	SoundBlaster Pro™-compatible / AD1881A AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / mic input jack / output jack / line in jack									CIM and DMI 2.0-compliant			
Security	Power-on password / hard disk password / supervisor password / security keyhole / Some: IBM Embedded Security Subsystem 2.0 ³³ / hardware key storage / multi-factor authentication / local file encryption / enhances VPN security ¹⁶ / TCPA-compliant									IBM ImageUltra™ Services available			
Limited warranty ¹²	1 year - EasyServ™. ¹⁹ onsite pickup and delivery courier service									IBM Rapid Restore PC available to protect software image and data			
Service options	Service upgrades ²² provide up to five years of onsite or depot repair service coverage from date of ThinkPad purchase (including warranty period)									Setup Guide, Service and Troubleshooting Guide, Windows manual			
128 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0028									International Warranty Service ¹⁷			
256 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0030									24 hour x 7 day ¹⁸ toll-free hardware support during the warranty ¹²			
512 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0032									ServicePac®. ²² 1yr IOR 9x5 NBD			
Second HDD Adapter for Ultrabay 2000	08K6068									30L9188			
20GB Hard Disk Drive	08K9686									ServicePac 2yr IOR 9x5 NBD			
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816									30L9189			
IBM 256MB USB 2.0 Memory Key	22P9025									ServicePac 3yr IOR 9x5 NBD			
IBM USB Portable Diskette Drive	05K9276									30L9195			
ThinkPad Removable Diskette Drive	08K9603									ServicePac 4yr IOR 9x5 NBD			
Zip 250MB Ultrabay 2000 Drive	00N8253									69P9194			
Ultralight 8X® Max DVD Ultrabay 2000	22P9102									ServicePac 5yr IOR 9x5 NBD			
DVD/CD-RW Combo IV Ultrabay 2000	22P6991									69P9196			
Travel Bezel for Ultrabay 2000	08K6070									ServicePac 2yr P&L P/U Depot			
IBM High Rate Wireless LAN PC Card 128	09N9904									30L9191			
IBM 1GB Microdrive	07N5574									30L9192			
Bluetooth PC Card II from IBM	19K5796									ServicePac 4yr P&L P/U Depot			
ThinkPad A30 Series Li-Ion Battery	02K6878									69P9195			
Ultrabay 2000 Li-Ion battery	02K6646									ServicePac 5yr P&L P/U Depot			
Multiple Li-Ion/NiMH Battery Charger	02K6719									69P9197			
ThinkPad 72W AC Adapter	02K6699									Other ServicePac options at ibm.com/services/its/us/source/wamomxeu.pdf			
ThinkPad Ultrabay Plus Carrier	22P5737												
ThinkPad Ultrabay Plus Numeric Keypd	22P7330												
ThinkPad Port Replicator	02K8667												
ThinkPad Port Replicator II	74P6733												
ThinkPad Mini Dock	287810U												
ThinkPad Dock	263120U												
IBM Optical Travel Wheel Mouse (black)	31P7410												
Portable Drive Bay 2000	19K4480												
IBM 128MB USB 2.0 Memory Key	22P8998												
IBM Portable USB 2.0 CD-RW Drive	22P5297												
ThinkPad USB 2.0 CardBus Adapter	33L3245												
Other options at ibm.com/us/pc/accessories													

See footnotes for important warranty information
 US models announced January 28, 2003
 US models withdrawn effective October 2003 or January 2004

Type-model	Processor	Speed	Memory	Screen	Disk	Ultrabay optical	Ultrabay diskette	Mini PCI wireless/modem	CDC ethernet	Preload	Limited warranty	Avail date
2652-AUU	Pentium® 4-M	1.6GHz	256MB	14.1" XGA	30GB ⁸	CD-RW	Diskette	Wi-Fi ³² /modem	10/100	Windows® XP Pro	1 yr	Apr 2002
2653-AUU	Pentium 4-M	1.6GHz	256MB	14.1" XGA	30GB	CD-RW	Diskette	Wi-Fi/modem	10/100	Windows XP Pro	3 yr	Apr 2002

These educational models of the ThinkPad A31 notebook must be sold only to qualified education customers. Qualified institution/customer is a public or private K-12 (or higher) accredited school organized and operated exclusively for educational purposes for use by Qualified Students and/or Qualified Teachers.

This model for education is for sale direct from IBM or through an Authorized Education Reseller. The model or models for education are not available for resale to any other organization or individual.

Positioning Processor	<i>High-performance desktop alternatives with exceptional versatility; three spindle</i> Mobile Intel® Pentium® 4 Processor-M 1.6GHz with enhanced Intel SpeedStep™ technology ¹ and 400MHz frontside bus				SOFTWARE¹⁴ Windows XP Pro models - Microsoft® Windows® XP Professional ²⁰ ✧ Disk-to-Disk Recovery (in hidden Service Partition)			
L2 cache	512KB / on die (at processor speed) / ECC				INCLUDED SOFTWARE¹⁴ (all) Preloaded • Access ThinkPad - Access Connections - Access Support - Access Help • Adobe® Acrobat Reader • PC-Doctor™ • ThinkPad Utilities • IBM Update Connector™ ¹⁵ • IBM RecordNOW by Veritas® Downloadable • IBM Rapid Restore™ PC • IBM Data Transfer • IBM Director Agent License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand Alone Client			
Memory	256MB std / 1GB max ⁷ / PC2100 266MHz²⁰ DDR-SDRAM / non-parity / 2.5v / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available							
Diskette drive	3.5" 1.44MB / removable from left Ultrabay 2000 (but travel bezel in bay at ship)							
CD-RW	CD-RW / 8X/4X/24X Max ⁹ speed / bootable / removable from Ultrabay Plus							
Modular bays	Two modular bays for interchangeable devices / Ultrabay 2000 (left side with travel bezel or diskette) and Ultrabay Plus (right side with CD-RW)							
Disk (removable)	30GB⁸ / upgradeable / S.M.A.R.T. / supports two additional disks with optional HDD adapter in each modular bay							
Display	14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 200:1 contrast							
Graphics controller	ATI® Mobility™ Radeon™ 7500 / AGP 4X / 16MB DDR-SDRAM 166MHz							
Graphics - external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M colors at 75Hz / DDC2B / supports external digital monitor ⁵ via the Digital Video Interface (DVI) port on either of the optional docking solutions							
Keyboard	87-key / Web navigation keys (6 total, 3 customizable) / ThinkPad Button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / pitch: 19mm; stroke: 2.7mm							
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions / no UltraPort™							
Case material	Color: black; Top: ABS plastic; Bottom: glass-fiber reinforced plastic							
Dimensions ³	Approximately 13.0 x 10.7 x 1.8-1.9"; 329mm x 272.5mm x 44.6-46.8mm							
Approximate weight ²	with battery and optical drive: 7.5 lb (3.32kg)							
Battery - type	Lithium Ion 6-cell 10.8V 4.0Ah / intelligent / supports 2nd battery in Ultrabay 2000							
Battery - life ¹⁰	2.3 hours / universal 72 watt AC adapter (16Vdc 4.5A)							
Architecture	Intel 845MP chipset / 82845MP Memory Controller Hub (MCH-M) / 82801CAM ICH3-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (Ricoch® R5C552 CardBus controller, Mini PCI, ext expansion) / LPC bus 33MHz (PC87392 Super I/O for diskette, serial, parallel, infrared)							
Port replicator	Optional ThinkPad Port Replicator							
Docking Station	Optional ThinkPad Dock (includes Ultrabay 2000 and half-size PCI slot)							
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / PCMCIA 2.1 / no Zoomed Video							
Ports	Two USB (version 1.1) / one 9-pin serial / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse							
Video out	S-video out port (TV out) / industry standard connector / no cable ships standard							
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradeable							
Wi-Fi ³² /modem	Mini PCI Wi-Fi ³² wireless ⁴ , Intersil® Prism 2.5 chipset, dual antennas in display cover, Wi-Fi-certified / 56K ⁶ V.90 (V.92-designed ²⁹) modem combo, Lucent® chipset							
CDC	Two Communications Daughter Card (CDC) sockets / customer accessible							
Ethernet	10/100 ethernet on CDC / Intel 82562ET chipset (physical layer)							
Open	One Communications Daughter Card (CDC) socket open							
Audio support	SoundBlaster Pro™-compatible / AD1881A AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / mic input jack / output jack / line in jack							
Security	Power-on password / hard disk password / supervisor password / security keyhole /							
Limited warranty ¹²	2652: 1 year - EasyServ™ ¹⁹ onsite pickup and delivery courier service							
Service options	2653: 3 years /1 year battery - EasyServ onsite pickup and delivery courier service							
	Service upgrades ²² provide up to five years of onsite or depot repair service coverage from date of ThinkPad purchase (including warranty period)							
128 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0028	IBM ThinkPad Ultrabay Plus Carrier	22P5737	PC 2001-compliant ACPI 1.0b and 2.0 support CIM and DMI 2.0-compliant IBM ImageUltra Services available IBM Rapid Restore PC available to protect software image and data Setup Guide, Service and Troubleshooting Guide, Windows manual Personalized Web-based support ³¹ Proactive e-mail updates ³¹ International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free hardware support during the warranty ¹²				
256 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0030	IBM ThinkPad Ultrabay Plus c500 Cradle	22P5738					
512 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0032	ThinkPad Ultrabay Plus Numeric KeyPad	22P7330					
Second HDD Adapter for Ultrabay 2000	08K6068	ThinkPad Port Replicator	02K8667					
20GB Hard Disk 9.5mm (4200 rpm)	08K9686	ThinkPad Dock	263120U					
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816	IBM USB Sleek Mouse	33L3244					
60GB HS Hard Disk 12.5mm (5400 rpm)	08K9688	IBM USB Numeric Keypad	33L3225					
ThinkPad Removable Diskette Drive	08K9603	IBM USB 32MB Memory Key	22P5296					
SuperDisk (LS-240) UltraBay 2000	08K9616	Portable Drive Bay 2000	19K4480					
Zip 250MB Ultrabay 2000 Drive	00N8253	10/100 EtherJet™ CardBus Adapter	08L3147					
Ultralight 8X Max DVD Ultrabay 2000	22P9102	2652: ServicePac ²² 1yr IOR 9x5 NBD	30L9188					
DVD/CD-RW Combo III Ultrabay 2000	22P6980	2652: ServicePac 2yr IOR 9x5 NBD	30L9189					
Travel Bezel for Ultrabay 2000	08K6070	2652: ServicePac 3yr IOR 9x5 NBD	30L9195					
ThinkPad A30 Series Li-Ion Battery	02K6878	2652: ServicePac 2yr P&L P/U Depot	30L9191					
Ultrabay 2000 Li-Ion battery	02K6646	2652: ServicePac 3yr P&L P/U Depot	30L9192					
ThinkPad 72W AC Adapter	02K6699	2653: ServicePac 2yr IOR 9x5 NBD	30L9190					
Multiple Li-Ion/NiMH Battery Charger	02K6719	2653: ServicePac 3yr IOR 9x5 NBD	30L9197					
Other options at ibm.com/us/pc/accessories								

Type-model	Processor	Speed	Memory	Screen	Disk GB ⁸	Ultrabay optical	Ultrabay diskette	Mini PCI wireless/modem	CDC ethernet	CDC modem	CDC Security chip	Preload	Limited Warranty	Avail date
2652-JUU	Pentium® 4-M	1.6GHz	128MB	14.1" XGA	20G	CD-ROM	Diskette	11b Wi-Fi ³² /mod	10/100	Open	No	XP Pro	1 year	Jun 2002
2653-JUU	Pentium 4-M	1.6GHz	128MB	14.1" XGA	20G	CD-ROM	Diskette	11b Wi-Fi/modem	10/100	Open	No	XP Pro	3 year	Jun 2002
2653-J9U	Pentium 4-M	1.8GHz	128MB	14.1" XGA	20G	CD-ROM	Diskette	11b Wi-Fi/modem	10/100	Open	No	XP Pro	3 year	Mar 2003
2653-Q5U	Pentium 4-M	2.0GHz	256MB	15.0" SXGA+	40G	Combo	Diskette	11b Wi-Fi/modem	10/100	Open	Yes	XP Pro	3 year	Jan 2003

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This model for education is for sale direct from IBM or through an Authorized Education Reseller.

The model or models for education are not available for resale to any other organization or individual.

Positioning Processor	<i>High-performance desktop alternatives with exceptional versatility; three spindle</i>										SOFTWARE¹⁴			
L2 cache	Mobile Intel® Pentium® 4 Processor-M 1.6, 1.8 or 2.0GHz with enhanced Intel SpeedStep™ technology ¹ and 400MHz frontside bus										Windows XP Pro models			
Memory	512KB / on die (at processor speed) / ECC										- Microsoft® Windows® XP Professional ²⁰			
	128 or 256MB std / 1GB max ⁷ / PC2100 DDR-SDRAM / non-parity / 266MHz ³⁰ / 2.5v / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										◇ Disk-to-Disk Recovery (in hidden Service Partition)			
Diskette drive	3.5" 1.44MB / removable from left Ultrabay 2000 (but travel bezel in bay at ship)										INCLUDED SOFTWARE¹⁴ (all)			
CD-ROM	<i>Some:</i> CD-ROM / 24X-10X ⁹ speed / bootable / removable from Ultrabay Plus										Preloaded			
Combo	<i>Some:</i> Combo / 16X/8X/24X/8X ²¹ speed / bootable / removable from Ultrabay Plus										• Access ThinkPad			
Modular bays (both 12.7mm)	Two modular bays for interchangeable devices / Ultrabay 2000 (left side) and Ultrabay Plus (right side) / Ultrabay 2000 left bay empty at ship (uses Travel Bezel)										- Access Connections			
Disk (removable)	20 or 40GB⁸ , 4200 rpm, 9.5mm / upgradable / S.M.A.R.T. / 12.5mm bay / supports two additional disks with optional HDD adapter in each modular bay										- Access Support			
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 16MB memory										• Adobe Acrobat Reader			
	<i>Some:</i> 15.0" (381mm) SXGA+ (1400x1050) TFT color / Active Matrix / 32MB memory / FlexView display with wide viewing angle and high density using in plane switching (IPS) technology										• PC-Doctor™			
Graphics controller	ATI® Mobility™ RADEON™ 7500 / AGP 4X / 16 or 32MB DDR-SDRAM 166MHz										• ThinkPad Utilities			
Graphics - external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M colors at 75Hz / DDC2B / supports external digital monitor via the Digital Video Interface (DVI) port on either of the optional docking solutions										• IBM Update Connector™ ¹⁵			
Keyboard	87-key / Web navigation keys (6 total, 3 customizable) / ThinkPad Button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar ¹³ / pitch: 19mm; stroke: 2.7mm										Downloadable			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions / no UltraPort™										• IBM Rapid Restore™ PC			
Case material	<i>Color:</i> black; <i>Top:</i> ABS plastic; <i>Bottom:</i> glass-fiber reinforced plastic										• IBM Data Transfer			
Dimensions ³	Approximately 13.0 x 10.7 x 1.8-1.9"; 329mm x 272.5mm x 44.6-46.8mm										• IBM Director Agent			
Approximate weight ²	with battery and optical drive: <i>JUU:</i> 7.3 lb (3.32kg); <i>Q5U:</i> 7.5 lb (3.4kg)										• Client Security Software (security chip model)			
Battery - type	Lithium Ion 6-cell 10.8V 4.0Ah / intelligent / supports 2nd battery in Ultrabay 2000										License (CD not included)			
Battery - life ¹⁰	2.3 hr / universal 72 watt AC adapter (16Vdc 4.5A)										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Architecture	Intel 845MP chipset / 82845MP Memory Controller Hub (MCH-M) / 82801CAM ICH3-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (Ricoh® R5C552 CardBus/1394 combo controller, Mini PCI, ext expansion) / LPC bus 33MHz (PC87392 Super I/O for diskette, serial, parallel, infrared)										PC 2001-compliant			
Docking Station	Optional ThinkPad Dock or Dock II (includes Ultrabay 2000 and half-size PCI slot)										ACPI 1.0b and 2.0 support			
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door										CIM and DMI 2.0-compliant			
Ports	Two USB (version 1.1) / one 9-pin serial / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse										IBM ImageUltra™ Services available			
Video out	S-video out port (TV out) / industry standard connector / no cable ships standard										IBM Rapid Restore PC available to protect software image and data			
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										Setup Guide, Service and Troubleshooting Guide, Windows manual			
11b Wi-Fi ³² /mod	<i>All:</i> 11b Wi-Fi ³² wireless ⁴ , Mini PCI, Intersil® Prism 2.5 chipset, UltraConnect™ antenna built in both sides of display, Wi-Fi certified / 56K ²⁹ V.90 (V.92-designed ²⁹) modem combo, Agere® chipset										International Warranty Service ¹⁷			
CDC	Two Communications Daughter Card (CDC) sockets / customer accessible										24 hour x 7 day ¹⁸ toll-free hardware support during the warranty ¹²			
Ethernet	10/100 ethernet on CDC / Intel 82562ET chipset (physical layer) / PXE / Wake on LAN®										2562: ServicePac ²² , 22 1yr IOR 9x5 NBD 30L9188			
Audio support	SoundBlaster Pro™-compatible / AD1881A AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / mic input jack / output jack / line in jack										2652: ServicePac 2yr IOR 9x5 NBD 30L9189			
Security	Power-on password / hard disk password / supervisor password / security keyhole										2652: ServicePac 3yr IOR 9x5 NBD 30L9195			
	<i>Some:</i> IBM Embedded Security Subsystem 2.0³³ / hardware key storage / multi-factor authentication / local file encryption / enhances VPN security ¹⁶ / TCG-compliant										2652: ServicePac 4yr IOR 9x5 NBD 69P9194			
Limited warranty ¹²	2652: 1 year - EasyServ™ ¹⁹ onsite pickup and delivery courier service										2652: ServicePac 5yr IOR 9x5 NBD 69P9196			
	2653: 3 years /1 year battery - EasyServ onsite pickup and delivery courier service										2652: ServicePac 2yr P&L P/U Depot 30L9191			
Service options	Service upgrades ²² provide up to five years of onsite or depot repair service coverage from date of ThinkPad purchase (including warranty period)										2652: ServicePac 3yr P&L P/U Depot 30L9192			
128 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0028										2652: ServicePac 4yr P&L P/U Depot 69P9195			
256 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0030										2652: ServicePac 5yr P&L P/U Depot 69P9197			
512 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0032										2653: ServicePac 2yr IOR 9x5 NBD 30L9190			
Second HDD Adapter for Ultrabay 2000	08K6068										2653: ServicePac 3yr IOR 9x5 NBD 30L9197			
20GB Hard Disk Drive	08K9686										2653: ServicePac 4yr IOR 9x5 NBD 69P9198			
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816										2653: ServicePac 5yr IOR 9x5 NBD 69P9200			
IBM 256MB USB 2.0 Memory Key	22P9025										2653: ServicePac 5yr P&L P/U Depot 69P9201			
IBM USB Portable Diskette Drive	05K9276										Other ServicePac options at ibm.com/services/its/us/source/wamomxeu.pdf			
ThinkPad Removable Diskette Drive	08K9603													
ThinkPad Multi-Burner Ultrabay 2000 Drive	22P7015													
Ultralight 8X ⁹ Max DVD Ultrabay 2000	22P9102													
DVD/CD-RW Combo IV Ultrabay 2000	22P6991													
Travel Bezel for Ultrabay 2000	08K6070													
IBM High Rate Wireless LAN PC Card 128	09N9904													
Bluetooth PC Card II from IBM	19K5796													
ThinkPad A30 Series Li-Ion Battery	02K6878													
Ultrabay 2000 Li-Ion battery	02K6646													
Multiple Li-Ion/NiMH Battery Charger	02K6719													
ThinkPad 72W AC Adapter	02K6699													
ThinkPad Ultrabay Plus Carrier	22P5737													
ThinkPad Ultrabay Plus Numeric Keypd	22P7330													
ThinkPad Port Replicator	02K8667													
ThinkPad Port Replicator II	74P6733													
ThinkPad Mini Dock	287810U													
ThinkPad Dock II	287710U													
IBM Optical Travel Wheel Mouse (black)	31P7410													
Portable Drive Bay 2000	19K4480													
IBM Portable USB 2.0 CD-RW Drive	22P5297													
	ThinkPad USB 2.0 CardBus Adapter 33L3245													
	Other options at ibm.com/us/pc/accessories													