

Personal Systems Reference IBM ThinkPad R Series 2001 to 2005 - withdrawn

May 2005 - Version 291



Type-model Proces	Mini PCI Ethernet Communications CDC on ssor Speed Memory Screen Disk Optical Bay Modem planar Prel	Workhorse or Global Avail load model date
2656-2BU Celero 2656-22U Celero 2656-32U Pentiu 2656-5BU Pentiu 2656-62U Pentiu 2656-7BU Pentiu	n™ 900 64MB¹¹¹ 13.3° XGA 10GB CD-ROM 802.11b/modem 10/100 Window n 900 64MB 13.3° XGA 10GB CD-ROM Open Modem 10/100 Window m° III 1.0 128MB 13.3° XGA 15GB CD-ROM Open Modem 10/100 Window m III 1.0 128MB 14.1° XGA 30GB DVD-ROM Open Modem 10/100 Window m III 1.0 128MB 14.1° XGA 30GB CD-RW 802.11b/modem 10/100 Window	ws® 98 SE Oct 2001 ws 98 SE Workhorse/Global Oct 2001
Positioning Processor L2 cache Memory	Best blend of portability and essential features; two-spindle system Intel® Mobile Celeron™ 900MHz with 100MHz Front Side Bus or Intel Mobile Pentium® III 1.0GHz² with Speedstep™ Technology with 100MHz Front Side Bus Celeron: 128KB / onboard (at processor speed) / ECC Pentium III: 256KB / onboard (at processor speed) / ECC 64MB, 128MB or 256MB⁰ standard / 1GB maximum / SDRAM / non-parity / 100MHz (chipset limits to 100MHz although 133MHz SO-DIMMs used) / PC 133 / 3.3v / two 144-pin SO-DIMM sockets / std mem in one socket / one socket available None standard / use optional Ultrabay™-based or USB-based diskette drive	SOFTWARE ¹⁴ Windows 98 models - Microsoft® Windows® 98 Second Edition Disk-to-Disk Recovery (in hidden Service Partition) INCLUDED SOFTWARE ¹⁴ (all) Preloaded
CD-ROM CD-RW DVD-ROM Ultrabay 2000 Disk Display	Some: CD-ROM / 24X-10X¹⁰ speed / bootable / removable from Ultrabay™ Plus Some: CD-RW / 8X/4X/24X¹⁰ Max / removable from Ultrabay Plus Some: DVD-ROM / 8X-3.3X¹⁰ speed / removable from Ultrabay Plus One modular bay for interchangeable devices (right side) / Ultrabay Plus-compatible 10, 15, or 30GB⁵ (4200 rpm) / upgradeable / S.M.A.R.T. / supports 2nd disk with optional HDD Adapter in Ultrabay Some: 13.3" (337.8mm) XGA (1024x768) TFT color / Active Matrix Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix	Access ThinkPad Adobe® Acrobat ConfigSafe® Mediamatics™ DVD (DVD models) MusicMatch Jukebox PC-Doctor™ ThinkPad Assistant™ ThinkPad Utilities
Graphics controller Graphics - external Keyboard	All: Easy-open cover to unlatch and open with one hand Trident® CyberBLADE™ Aladdini1 2X AGP 3D / 8MB¹¹ SDRAM / Unified Memory Architecture / controller in M1632M Northbridge External SVGA to various modes such as 16.7 million colors, 85Hz, or 1600x1200 87-key / ThinkPad Button / palm rest / TrackPoint®, "Press-to-Select,"	IBM Update Connector ^{TM,15} Veritas RecordNOW (CD-RW mod) Downloadable IBM Rapid Restore PC IBM Data Transfer
ThinkLight™ UltraPort™ Dimensions¹⁴	Internet Scroll Bar / pitch: 19mm; stroke: 2.7mm Illuminates the keyboard to improve visibility in low-light conditions None 12.3" x 10.0" x 1.42"	 Universal Manageability Services™ License Lotus® SmartSuite® Millennium
Approximate weight ² Case material Battery - type Battery - life ¹³	with optical drive and battery: CD-ROM models: 5.7 lbs; DVD models: 5.8 lbs; CD-RW models: 5.9 lbs Color: black; All: ABS plastic Lithium Ion 6-cell / intelligent / no second battery in Ultrabay Plus 2.5 hrs to 3.0 hrs depending on model	
Architecture Port Replicator PC Card Std slots Ports	ALi chipset / M1632M Northbridge (memory, graphics, PCI, Mini PCI) / M1535 Southbridge (IDE, USB, parallel, audio, power management) / PCI 2.1, 32-bit 33MHz / O2® Micro OZ6912 for CardBus Optional ThinkPad Port Replicator (no ThinkPad Dock support) One Type II or one Type III / CardBus 32-bit / PCMCIA 2.1 / no Zoomed Video Two USB (Version 1.1) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port	
Video out Mini PCI CDC Modem 802.11b/modem Ethernet Audio support Security Limited warranty*.22	S-video out / one industry standard connector One Mini PCI IIIb slot (Communications Bay) / not customer upgradeable One Communications Daughter Card (CDC) socket (open or modem) / not accessible Some: 56K ⁶ V.90 (V.92-capable ²⁹) CDC modem card / Lucent® chip set Some: Mini PCI 802.11b wireless⁴, Intersi® Prism 2.5 chipset, antennas in side of display and base, Wi-Fi-certified / 56K ¹² V.90 ²⁹ modem combo, Lucent® chipset 10/100 ethernet on planar / Intel® 82550GY chipset Soft audio / SoundBlaster-compatible / Realtek® ALC200 AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) Power-on password / hard disk password / supervisor password / security keyhole 1 year - EasySery™.25 onsite pickup and delivery / warranty service upgrades²¹	bay supports most Ultrabay 2000 devices including CD-RW/DVD
64 MB SO DIMM 128 MB SO DIMM 256 MB SO DIMM 512 MB SO DIMM 512 MB SO DIMM 512 MB SO DIMM 24 NE	133MHz NP SDRAM 19K4650 USB Portable Diskette Drive 05K9276 133MHz NP SDRAM 19K4652 ThinkPad Removable Diskette Drive 08K9603 133MHz NP SDRAM 19K4654 ThinkPad R30 Series Li-lon Battery 02K6821 133MHz NP SDRAM 19K4656 ThinkPad R30 Series Li-lon Battery 02K6699 19 UltraBay 2000 08K9616 ThinkPad 72W AC Adapter 02K6699 19 C Auto Adapter 02K8667 10K3820 19 C Auto Adapter 02K8667 10 C Auto Adapter 02K8667	Universal 72 watt AC adapter PC 2001-compliant CIM and DMI 2.0-compliant Wired for Management 2.0 IBM ImageUltra Services available IBM Rapid Restore PC available to protect software image and data Personalized Web-based support ²³ Setup Guide, Service and Trouble-shooting Guide, Windows manual International Warranty Service ²⁴ 24 hour x 7 day¹ toll-free hardware support during the warranty

			M: : DO:	FIL	0
Type-model Proces	ssor Speed Memory Screen	Disk Optical	Mini PCI Communications CDC Bay Modem	ethernet on planar Prel	Small Workhorse (W) business or Global (G) Avail load software model date
2656-A0U Celeror 2656-B0U Pentiur 2656-DAU Pentiur 2656-E0U Pentiur 2656-A3U Celeror 2656-2AU Celeror 2656-2AU Celeror 2656-2AU Pentiur 2656-5AU Pentiur 2656-6AU Pentiur 2656-6AU Pentiur 2656-6AU Pentiur	n TM 900 64MB ¹¹ 13.3" XG n 900 64MB 13.3" XG n [®] III 1.0 128MB 13.3" XG n III 1.0 128MB 13.3" XG n III 1.0 128MB 14.1" XG n III 1.0 128MB 14.1" XG n III 1.0 128MB 13.3" XG n 900 64MB 13.3" XG n 900 128MB 13.3" XG n III 1.0 128MB 13.3" XG n III 1.0 128MB 13.3" XG	iA 10GB CD-ROM iA 15GB CD-ROM iA 15GB CD-ROW iA 30GB DVD-ROI iA 30GB CD-RW iA 10GB CD-ROM iA 10GB CD-ROM iA 10GB CD-ROM iA 15GB CD-ROM iA 15GB CD-ROW iA 30GB DVD-ROI iA 30GB DVD-ROI iA 30GB DVD-ROI iA 30GB DVD-ROI	802.11b/modem Open Modem 802.11b/modem V Open Modem 802.11b/modem Open Modem 802.11b/modem Open Modem Open Modem Open Modem Open Modem V Open Modem NOCEN MODEM	10/100 Windov 10/100 Windov 10/100 Windov 10/100 Windov 10/100 Windov 10/100 Windov 10/100 XP Hor 10/100 XP Hor	ws 2000 Oct 2001 me Nov 2001 me Office XP SB Nov 2001 Nov 2001 Nov 2001 Nov 2001 Nov 2001 Nov 2001
Positioning Processor	Best blend of portability an Intel® Mobile Celeron™ 9				SOFTWARE ¹⁵
L2 cache Memory	Intel Mobile Pentium® III 100MHz Front Side Bus Celeron: 128KB / at proces 64MB or 128MB® standard 3.3v / two 144-pin SO-DIM	1.0GHz ⁷ with Spee sor speed; <i>Pentium</i> / 1GB maximum / S IM sockets / std me	edstep™ Technology wit ///: 256 KB / at processor DRAM / non-parity / 100 m in one socket / one so	speed MHz/PC 133/ ocket available	Windows XP Home models - Microsoft® Windows® XP Home ⇒ Disk-to-Disk Recovery (in hidden Service Partition) Windows 2000 models
Diskette drive CD-ROM CD-RW DVD-ROM Ultrabay 2000 Disk	None standard / use optio Some: CD-ROM / 24X-10X Some: CD-RW / 8X/4X/24: Some: DVD-ROM / 8X-3.3 One modular bay for interr 10, 15, or 30GB ⁸ (4200 rp supports 2nd disk with options of the support of the s	10 speed / bootable of the speed / bootable of the speed / removable of the speed / removable of the speed / speed / speed of the speed	/ removable from Ultraba from Ultrabay Plus ble from Ultrabay Plus (right side) / Ultrabay P S.M.A.R.T. /	ıy™ Plus	- Microsoft Windows 2000 Professional - ConfigSafe®
Display	Some: 13.3" (337.8mm) X Some: 14.1" (358.1mm) X All: Easy-open cover to	GA (1024x768) TF GA (1024x768) TF o unlatch and open	T color / Active Matrix		Preloaded • Access ThinkPad
•	Trident® CyberBLADE™ Al Unified Memory Architectu	adini1 2X AGP 3D / re / controller in M1	8MB ¹¹ SDRAM / 1632M Northbridge		Access Connections Access Help Adobe® Acrobat
Graphics - external Keyboard	External SVGA to various a 87-key / ThinkPad Button /			1600x1200	Mediamatics™ DVD (DVD models) MusicMatch Jukebox DO Books™
ThinkLight™ UltraPort™	Internet Scroll Bar / pitch: Illuminates the keyboard to None	19mm; stroke: 2.7m	nm		 PC-Doctor™ ThinkPad Assistant™ ThinkPad Utilities IBM Update Connector™.19
Dimensions ¹⁴ Approximateweight ² Case material Battery - type Battery - life ¹³ Architecture Port Replicator PC Card Std slots Ports	12.3" x 10.0" x 1.42" with optical drive and batter Color: black; All: ABS plast Lithium Ion 6-cell / intellige 2.5 hrs to 3.0 hrs depending ALi chipset / M1632M Nom M1535 Southbridge (IDE, PCI 2.1, 32-bit 33MHz / Oxional ThinkPad Port Fone Type II or one Type II Two USB (Version 1.1) / pRJ-11 (modem) / RJ-45 (expense)	CD-RW models stic control of the con	ery in Ultrabay Plus graphics, PCI, Mini PCI or, power management) / or CardBus «Pad Dock support) PCMCIA 2.1 / no Zoom or 2.15 monitor / infrared (4) / ed Video !Mbps) /	Veritas RecordNOW (CD-RW mod) Downloadable IBM Rapid Restore PC IBM Data Transfer Universal Manageability Services™ Veritas RecordNOW (CD-RW mod) License Lotus® SmartSuite® Millennium Office XP Small Business models only Microsoft Office XP Small
Video out Mini PCI CDC Modem 802.11b/modem Ethernet Audio support Security Limited warranty*.22	S-video out / one industry One Mini PCI IIIb slot (Com One Communications Dau Some: 56K ⁶ V.90 (V.92-ca Some: Mini PCI 802.11b v	standard connector munications Bay) / ghter Card (CDC) s pable ²⁹) CDC mode jireless ⁴ , Intersil ⁶ Pr Vi-Fi-certified / 56K ¹ / Intel ⁶ 82550GY c compatible / Realtek olume up, down, mun mm) / headphone disk password / su	not customer upgradeab socket (open or modem) /em card / Lucent® chip s ism 2.5 chipset, antenna 2 V.9029 modem combo, hipset ® ALC200 AC97 codec / ite buttons / no internal n jack (3.5 mm) upervisor password / sec	le / not accessible set si n side of Lucent® chipset nicrophone / curity keyhole	Combo drive, diškette 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
64 MB SO DIMM 128 MB SO DIMM 256 MB SO DIMM 512 MB SO DIMM 512 MB SO DIMM SuperDisk (LS-24/ Zip 250MB Ultraba 24X-10X CD-ROM 8X/4X/24X Max C 8X-3X DVD Ultraba CD-RW/DVD Com Travel Bezel for UI Second HDD Ada IBM ThinkPad Ultı IBM ThinkPad Ultı	133MHz NP SDRAM 19 10) UltraBay 2000 00 10 2000 Drive 00 10 Ultrabay 2000 00 10 2000 Drive 20 10 2000 Drive 20 10 2000 00 10	0K4650 USB Porta 1K4652 ThinkPad F 1K4654 ThinkPad F 1K4656 ThinkPad F 1K4656 ThinkPad F 1K9233 2000 15GB Hard 1K9572 30GB Hard 1K9572 ServicePad 1K6070 ServicePad	ble Diskette Drive Removable Diskette Drive R30 Series Li-Ion Battery R2W AC Adapter Port Replicator rive Bay 2000 (accepts Umedia and storage device	05K9276 e 08K9603 02K6821 02K6699 02K8667 JItrabay ces) 19K4480 08K9588 08K9593 08K9600 30L9188	Series Universal 72 watt AC adapter PC 2001-compliant CIM and DMI 2.0-compliant Wired for Management 2.0 IBM ImageUltra Services available IBM Rapid Restore PC available to protect software image and data Personalized Web-based support ²³ Setup Guide, Service and Trouble- shooting Guide, Windows manual International Warranty Service ²⁴ 24 hour x 7 day¹ toll-free hardware support during the warranty

^{*} For a copy of IBM's Statement of Limited Warranty, call 1-800-772-2227 US models announced October 9, 2001 US models withdrawn effective April 2002

Towns on the Co		and Berry C		Disk	0-4:1	Mini PCI Comm Bay	CDC	Ethernet on Securi	
Type-model Proc 2656-25U Celert 2656-A5U Celert 2656-AFU Celert 2656-AFU Celert 2656-AGU Celert 2656-BFU Pentit 2656-BFU Pentit 2656-EFU Pentit 2656-EFU Pentit 2656-EFU Pentit 2656-HFU Pentit 2656-HFU Pentit 2656-HFU Pentit	on™ 1 on	.06 128MB .06 128MB .06 128MB .06 128MB .00 128MB .13 128MB	13.3" XGA 2 13.3" XGA 2 13.3" XGA 2 13.3" XGA 2 14.1" XGA 2 13.3" XGA 2 13.3" XGA 2 14.1" XGA 3 14.1" XGA 3 14.1" XGA 3 14.1" XGA 3 14.1" XGA 3	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	CD-ROM CD-ROM CD-ROM CD-ROM CD-ROM CD-RW CD-RW CD-RW CD-RW CD-RW CD-RW CD-ROM C	Open Open Wi-Fi ³² /mod Open Wi-Fi/mod Open Wi-Fi/mod Wi-Fi/mod Open Open Wi-Fi/mod Wi-Fi/mod Wi-Fi/mod Wi-Fi/mod Wi-Fi/mod	Modem Modem None Modem None Modem None Modem None None None None	10/100 10/100 10/100 10/100 10/100 10/100 10/100 10/100 10/100	XP Pro W G Feb 2002 XP Pro Feb 2002 XP Pro Office XP SB Feb 2002
Positioning Processor L2 cache Memory Diskette drive CD-ROM CD-RW DVD-ROM DVD-ROM/CD-RV	Intel® Mc Pentium Celeron: 128MB s 3.3v / two None sta Some: C Some: C Some: D V Some: D		™ 1.06GHz 1.13GHz with ocessor spee 8 max ⁷ / SDF DIMM socke bitional Ultrab -10X ⁹ speed (/24X Max ⁹ / (-3.3X ⁹ speed -RW combo	with 1 h Speced; Pe RAM / ets / st Day™- / boot remod / rem	and the control of t	ntside bus or nnology¹ with ¹ ! KB / at proce 133MHz / PC e socket / one B-based disk able peed / remov	Intel Mo 133MHz essor spe 133 / e socket a ette drive	frontside bus ed available	SOFTWARE¹⁴ Windows XP Home models - Microsoft® Windows® XP Home²⁰ ⇒ Disk-to-Disk Recovery (in hidden Service Partition) Windows XP Pro models - Microsoft® Windows® XP Professional²⁰ ⇒ Disk-to-Disk Recovery (in hidden Service Partition)
Ultrabay 2000 Disk	20, 30, o supports	lular bay for in r 40GB ⁸ (4200 2nd disk with) rpm) / upgr optional HD	adable D Ada	e / S.M.Ă.R.ī apter in Ultrat	Г. <i>Í</i> рау		compatible	INCLUDED SOFTWARE ¹⁴ (all)
Graphics - externative Seyboard	Some: 1 r Intel 830 controlle al External 87-key/	r dynamically SVGA to varion ThinkPad But	m) XGA (102 ed Direct AG allocates 8 to ous modes s ton / palm re	24x76 GP 3D o 32M uch as st / Tr	8) TFT color / Unified Me IB ¹¹ of systen s 16.7 million ackPoint®, "F	·/ Active Matr mory Archited in memory for in colors, 85Hz	ix cture / in graphics z, or 1600	;	Preloaded • Access ThinkPad - Access Connections - Access Help - Access Support • Adobe® Acrobat • InterVideo WinDVD (DVD models)
ThinkLight™ Dimensions³ Approximateweigh Case material Battery - type Battery - life¹0	Illuminate 12.3" x 1 t² w/ batter <i>Color:</i> Bl Lithium le	Scroll Bar ¹³ / pes the keyboa 0.0" x 1.42" / 3 y and: <i>CD-RC</i> ack; <i>All:</i> ABS on 6-cell / inter models: 2.4 to	rd to improve 313mm x 25 0M: 5.8 lbs; L plastic lligent / no se	e visib 4mm 2 2 <i>VD:</i> 5 econd	oility in low-lig x 36mm 5.8 lbs; <i>CD-F</i> battery in Ultr	RW: 6.1 lbs; <i>D</i>			Norton AntiVirus PC-Doctor™ ThinkPad Utilities IBM Update Connector™.15 Veritas RecordNOW (CD-RW mod) Downloadable IBM Donid Rector™ PC
Architecture Port Replicator PC Card Std slots Ports	Intel 830 82801 CA bus, ethe Firmware Optional One Type Two USE	MG chipset / AM ICH3-M I/O ernet, AC-Link e Hub / LPC ThinkPad Po e II or one Typ 3 (Version 1.1 nodem) / RJ-4	82830MG G O Controller I) / PCI bus 2 us 33MHz (N ort Replicato be III / CardB) / parallel / e	raphic Hub (A 1.2 32- NS PC or (no Bus 32 externa	cs Memory C ATA-100/66 I bit, 33MHz (87392VJG S ThinkPad Do bit / PCMCI al DB-15 mo	ontroller Hub EIDE, PCI bu TI® PCI1410, Super I/O for p ock support) A 2.1 / integra nitor / infrared	s, USB, L A CardBu parallel, in ated door d (4Mbps	Low Pin Coun is, Mini PCI) / nfrared)	IBM Rapid Restore™ PC IBM Data Transfer Veritas RecordNOW (CD-RW mod) License Lotus® SmartSuite® Millennium and Lotus Notes® Client 5.0 Microsoft Office XP Small Business® Models
Video out Mini PCI Wi-Fi ³² /modem	S-video d One Mini Some: N	out port (TV or i PCI type III s fini PCI Wi-Fi isplay and in t 6K ⁶ V.90 (V.9	ut) / one indu lot (Commur 32 wireless ⁴ , I base), Wi-Fi-o	istry s nicatio ntersil certifie	tandard conr ons Bay) / not ® Prism 2.5 c ed /	nector customer up hipset, dual a	gradable Intennas	(in side of	- Microsoft Office XP Small Business ¹⁸ (Word, Excel, Outlook, Publisher, Small Business Tools) \$\displayset{Office XP Small Business CD}\$
CDC Modem Ethernet Audio support	One Con Some: 5 10/100 e Soft audi stereo sp micropho	nmunicatiòns 6K ⁶ V.90 (V.9 thernet on pla o / SoundBlas peakers / 1 wa one input jack n password / l	Daughter Ca 2-designed ^{2:} nar / Intel® 8: ster-compatil tt / volume u (3.5 mm) / h	ard (Cl) CD(2562E ble / A p, dov eadph	DC) socket (c C modem car ET chipset analog Device vn, mute butt none jack (3.5	open or moder rd / Lucent® cl es AD1881A a cons / no inter 5 mm)	n) / not ad hip set AC97 cod nal micro	dec/ ophone/	Ultrabay Plus integrated modular bay supports most Ultrabay 2000 devices including CD-RW/DVD Combo drive, diskette drive, or Zip drive; the optional Ultrabay Plus Device Carrier adds potential
	Some: IE	BM Embedde uthentication	d Security S local file en	Subsy cryptic	r stem ³³ / hard on / enhance	dware key sto s VPN securi	rage / mı ty ¹⁶	ulti-factor	functionality by supporting the Ultrabay Plus Numeric Keypad and Cradle for the WorkPad® c500
Limited warranty ¹² 64 MB SO DIMN 128 MB SO DIMN 256 MB SO DIMN 512 MB SO DIMN SuperDisk (LS-2: Zip 250MB Ultrat 24X-10X CD-RO 8X/4X/24X Max (CD-RW/DVD Co Second HDD Ad: IBM ThinkPad Ul ThinkPad Ultraba See footnotes for in	M 133MHz M 133MHz M 133MHz M 133MHz M 133MHz M 1000 UltraBa DOP W Ultrabay CD-RW Ultr K DVD Ultr Mbo III Ultr Apter for Ultrabay Plus Ry Plus Ry Plus Ry Plus Ry Plus	NP SDRAM NP SDRAM NP SDRAM NP SDRAM Ay 2000 Irrive 1 2000 Drive rabay 2000 abay 2000 trabay 2000 trabay 2000 s Carrier s c500 Cradle meric Keypad	19K4650 19K4652 19K4654 19K4656 08K9616 00N8253 05K9233 22P9101 22P9102 22P6980 08K6068 22P5737 22P5738 22P7330	USB Thin Thin Thin Port: 20G 40G IBM Serv Serv Serv Serv	B Portable DiskPad R30/R3kPad R30/R3kPad Port Reable Drive B 2000 media B Hard Disk S B HS Hard D Optical 3-BuricePac 3-27 lvicePac 3yr lvicePac 3yr lvicePac 2yr FricePac 2yr	skette Drive 31 Li-Ion Batt C Adapter	ery epts Ultra devices) rpm) 400 rpm) heel Mou BD	05K9276 02K6821 02K6699 02K8667 bay 19K4480 08K9686 08K9816	Series Other options at ibm.com/pc/us/accessories Universal 72 watt AC adapter PC 2001-compliant 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 day¹8 toll-free hardware support during the warranty¹2 (R31) © IBM Corp. July 2003

	Mini PCI Ethernet Disk Comm Bay CDC on Sect	
Type-model Proce	ssor Speed Memory ¹¹ Screen GB ⁸ Optical wireless/modem modem planar Ch	ip Preload software model date
	m®III-M 1.13 128MB 14.1" XGA 30G DVD-ROM Open Modem 10/100	XP Pro Apr 2002
	mIII-M 1.13 128MB 14.1" XGA 30G CD-RW Open Modem 10/100 Ye	
	mIII-M 1.13 128MB 14.1"XGA 40G DVD/CD-RW Wi-Fi ²² /mod None 10/100 Y€ mIII-M 1.13 256MB 14.1"XGA 30G DVD-ROM Open Modem 10/100	s XP Pro Apr 2002 XP Pro Apr 2002
	mill-M 1.0 128MB 14.1" XGA 20G DVD-ROM Open Modem 10/100	XP Pro Apr 2002
	mIII-M 1.13 128MB 14.1" XGA 30G DVD-ROM Wi-Fi/mod None 10/100	XP Pro Office XP SB ¹⁸ Apr 2002
		s XP Pro Office XP SB Apr 2002
	mIII-M 1.13 128MB 14.1" XGA 30G CD-RW Open Modem 10/100 Ye	
	mIII-M 1.13 128MB 14.1"XGA 40G DVD/CD-RW Wi-Fi/mod None 10/100 Ye mIII-M 1.13 128MB 14.1"XGA 30G DVD-ROM Open Modem 10/100	s Windows 2000 Apr 2002 Windows 2000 Apr 2002
2656-FEU Pentiu	mIII-M 1.13 256MB 14.1" XGA 30G DVD-ROM Open Modem 10/100	Windows 2000 Apr 2002
	mIII-M 1.0 128MB 14.1" XGA 20G DVD-ROM Open Modem 10/100	Windows 2000 Apr 2002
Positioning	Best blend of portability and essential features; two-spindle system	SOFTWARE ¹⁴
TAA-compliant	Trade Act Agreement-compliant	Windows XP Pro models
Processor	Intel® Mobile Pentium® III-M 1.0 or 1.13GHz with Speedstep™ technology¹ with 133MHz Front Side Bus	- Microsoft® Windows® XP
L2 cache	512 KB / at processor speed / ECC	Professional ²⁰
Memory	128 or 256MB standard / 1GB max ⁷ / SDRAM / non-parity / 133MHz / PC133 /	♦ Disk-to-Disk Recovery
,	3.3v / two 144-pin SO-DIMM sockets / std mem in one socket / one socket available	(in hidden Service Partition)
Diskette drive	None standard / use optional Ultrabay™-based or USB-based diskette drive	Windows 2000 models
CD-RW	Some: CD-RW / 8X/4X/24X Max ⁹ / removable	- Microsoft Windows 2000
DVD-ROM	Some: DVD-ROM / 8X-3.3X speed / removable	Professional ²⁰
Ultrabay 2000	/ Some: DVD-ROM/CD-RW combo / 8X/8X/24X/8X ²¹ speed / removable One modular bay for interchangeable devices (right side) / Ultrabay™ Plus -compatible	- ConfigSafe®
Disk	20, 30, or 40GB ⁸ (4200 rpm) / upgradeable / S.M.A.R.T. /	♦ Disk-to-Disk Recovery
	supports 2nd disk with optional HDD Adapter in Ultrabay	(in hidden Service Partition)
Display	14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix	INCLUDED SOFTWARE ¹⁴ (all)
Graphics controller	Intel 830MG Integrated Direct AGP 3D / Unified Memory Architecture / in GMCH /	Preloaded • Access ThinkPad
Granhics - external	controller dynamically allocates 8 to 32MB ¹¹ of system memory for graphics External SVGA to various modes such as 16.7 million colors, 85Hz, or 1600x1200	- Access Connections
	87-key / ThinkPad Button / palm rest / TrackPoint®, "Press-to-Select,"	- Access Help
Keyboard	Internet Scroll Bar ¹³ / pitch: 19mm; stroke: 2.7mm	- Access Support
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	Adobe® Acrobat
UltraPort™	None	 InterVideo WinDVD (DVD models) Norton AntiVirus
Dimensions ³	12.3" x 10.0" x 1.42" / 313mm x 254mm x 36mm	PC-Doctor™
	w/battery and: DVD-ROM: 5.8 lbs; CD-RW: 6.1 lbs; DVD/CD-RW: 6.1 lbs	 ThinkPad Utilities
Case material	Color: black; All: ABS plastic	IBM Update Connector™,15
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell / intelligent / no second battery in Ultrabay Plus 802.11b models: 2.9 hrs; Others: 3.1 hrs	Veritas RecordNOW (CD-RW mod)
Architecture	Intel 830MG chipset / 82830MG Graphics Memory Controller Hub (GMCH-M) /	— Downloadable
Architecture	82801CAM ICH3-M I/O Controller Hub (ATA-100/66 EIDE, PCI bus, USB, Low Pin Coi	IBM Rapid Restore™ PC Int IBM Data Transfer
	bus, ethernet, AC-Link) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1410A CardBus, Mini PCI	
	Firmware Hub / LPC bus 33MHz (NS PC87392VJG Super I/O for parallel, infrared)	 IBM Client Security Software (for
Port Replicator PC Card Std slots	Optional ThinkPad Port Replicator (no ThinkPad Dock support) One Type II or one Type III / CardBus 32-bit / PCMCIA 2.1 / no Zoomed Video	security chip)
Ports	Two USB (Version 1.1) / parallel / external DB-15 monitor / infrared (4Mbps) /	License
1 0110	RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port	- Lotus® SmartSuite® Millennium
Video out	S-video out port (TV out) / one industry standard connector	and Lotus Notes® Client 5.0
Mini PCI	One Mini PCI type III slot (Communications Bay) / not customer upgradeable	Microsoft Office XP Small
Wi-Fi ³² /modem	Some: Mini PČÍ Wi-Fi ³² wireless ⁴ , Intersil [®] Prism 2.5 chipset, dual antennas (in side of	Business ¹⁸ Models (H6U and H9U)
	display and in base), Wi-Fi-certified / 56K ⁶ V.90 (V.92-designed ²⁹) modem combo, Lucent® chipset	- Microsoft Office XP Small Business ²⁸ (Word, Excel, Outlook,
CDC	One Communications Daughter Card (CDC) socket (open or modem) / not accessible	Publisher, Small Business Tools)
_Modem	Some: 56K ⁶ V.90 (V.92-designed ²⁹) CDC modem card / Lucent [®] chip set	♦ Office XP Small Business CD
Ethernet	10/100 ethernet on planar / Intel® 82562ET chipset	Ultrabay Plus integrated modular
Audio support	Soft audio / SoundBlaster-compatible / Analog Devices AD1881A AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / no internal microphone /	bay supports most Ultrabay 2000
	microphone input jack (3.5 mm) / headphone jack (3.5 mm)	devices including CD-RW/DVD Combo drive, diskette drive, or Zip
Security	Power-on password / hard disk password / supervisor password / security keyhole	drive; the optional Ultrabay Plus
	Some: IBM Embedded Security Subsystem ³³ / hardware key storage / multi-factor authentication / local file encryption / enhances VPN security ¹⁶	Device Carrier adds potential
Limited warranty ¹²	1 year - EasyServ ^{TM,19} onsite pickup and delivery / warranty service upgrades ²²	functionality by supporting the Ultrabay Plus Numeric Keypad and
Entition waitabley		Cradle for the WorkPad® c500
	133MHz NP SDRAM 19K4650 USB Portable Diskette Drive 05K9276	
	133MHz NP SDRAM	
	133MHz NP SDRAM 19K4656 ThinkPad Port Replicator 02K866	CIM and DMI 2.0-compliant
SuperDisk (LS-24	0) UltraBay 2000 08K9616 Portable Drive Bay 2000 (accepts Ultrabay	IBM ImageUltra Services available
Zip 250MB Ultrab	ay 2000 Drive 00N8253 2000 media and storage devices) 19K4480	
	## MUltrabay 2000 Drive	protect software image and data Personalized Web-based support ³¹
	DVD Ultrabay 2000 22P9102 60GB HS Hard Disk 9.5mm (5400 rpm) 08K9688	Setup Guide, Service and Trouble-
	nbo II Ultrabay 2000 08K9701 ServicePac®, 22 1yr IOR 9x5 NBD 30L9188	shooting Guide, Windows manual
Second HDD Ada	pter for Ultrabay 2000 08K6068 ServicePac 2yr IOR 9x5 NBD 30L9189	
	rabay Plus Carrier 22P5737 ServicePac 3ýr IOR 9x5 NBD 30L9195 rabay Plus c500 Cradle 22P5738 ServicePac 2yr P&L P/U Depot 30L9191	
TIDIVI THIHKPAU UIT		
ThinkPad Ultraba	y Plus Numeric Keypad 22P7330 ServicePac 3yr P&L P/U Depot 30L9192	

							Mini PCI	CDC	Ethernet		Workhorse (W) y or Global (G) Avail
Type-model Proce	essor	GHz	Memory ¹¹	Screen	Disk	Optical	Comm Bay		planar	Securit Chip	Preload model date
2657-F4U Pentiur 2657-FEU Pentiur 2657-F5U Pentiur 2657-FGU Pentiur	mIII-M mIII-M	1.13 1.13	256MB 128MB	14.1" XGA	30GB 30GB	DVD-ROM DVD-ROM DVD-ROM DVD-ROM	Open Open	Modem Modem Modem Modem	10/100 10/100	No No No No	Windows® 2000 Apr 2002 Windows 2000 Apr 2002 Windows XP Pro Apr 2002 Windows XP Pro Apr 2002
 2657 models have a 3 year limited warranty (other 2656 ThinkPad R31 systems have a 1 year limited warranty) Trade Act Agreement (TAA)-compliant models 											
Positioning						tures; two-s	pindle syste	m			SOFTWARE ¹⁴
TAA-compliant Processor Intel® Mobile Pentium® III Processor-M 1.13GHz with Speedstep™ technology¹ with 133MHz Front Side Bus 512 KB / at processor speed Memory 128MB or 256MB standard / 1GB maximum² / SDRAM / non-parity / 133MHz / PC133 / 3.3v / two 144-pin SO-DIMM sockets / std mem in one socket / one socket available Diskette drive CD-RW DVD-ROM / 8X-3.3X® speed / removable Ultrabay 2000 Disk 30GB® (4200 rpm) / upgradeable / S.M.A.R.T. / supports 2nd disk with optional HDD Adapter in Ultrabay Display 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix Graphics controller Graphics - external External SVGA to various modes such as 16.7 million colors, 85Hz, or 1600x1200 Keyboard 87-key / ThinkPad Button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar¹³ / pitch: 19mm; stroke: 2.7mm ThinkLight™ Windows XP Pro models - Microsoft® Windows XP Pro models - Microsoft® Vindows XP Pro models - Microsoft® Vindows XP Pro models - Microsoft® Vindows 2000 - Disk-to-Disk Recovery (in hidden Service Partition) Windows 2000 models - Microsoft Windows 2000 professional²⁰ - Microsoft® Windows 2000 professional²⁰ - Microsoft® Windows 2000 professional²⁰ - Microsoft® Vindows 2000 professional²⁰ - Microsoft® Vindows 2000 models - Microsoft® Vindows 2000 professional²⁰ - M											- Microsoft® Windows® XP Professional²0 ◆ Disk-to-Disk Recovery (in hidden Service Partition) Windows 2000 models - Microsoft Windows 2000 Professional²0 - ConfigSafe® ◆ Disk-to-Disk Recovery (in hidden Service Partition) INCLUDED SOFTWARE¹⁴ (all) Preloaded • Access ThinkPad
Dimensions ³	ItraPort™ None imensions³ 12.3" x 10.0" x 1.42" / 313mm x 254mm x 36mm pproximateweight² w/ battery and DVD: 5.8 lbs (2.6 kg) ase material Color: black; All: ABS plastic attery - type Lithium Ion 6-cell / intelligent / no second battery in Ultrabay Plus										- Access Support • Adobe® Acrobat • InterVideo WinDVD (DVD models) • Norton AntiVirus • PC-Doctor™
Port Replicator PC Card Std slots Ports	Architecture Intel 830MG chipset / 82830MG Graphics Memory Controller Hub (GMCH-M) / 82801CAM ICH3-M I/O Controller Hub (ATA-100/66 EIDE, PCI bus, USB, Low Pin Count bus, ethernet, AC-Link) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1410A CardBus, Mini PCI) / Firmware Hub / LPC bus 33MHz (NS PC87392VJG Super I/O for parallel, infrared) Port Replicator PC Card Std slots Optional ThinkPad Port Replicator (no ThinkPad Dock support) One Type II or one Type III / CardBus 32-bit / PCMCIA 2.1 / no Zoomed Video										 ThinkPad Utilities IBM Update Connector™.15 Downloadable IBM Rapid Restore™ PC IBM Data Transfer IBM Director Agent IBM Client Security Software (for security chip)
Video out Mini PCI WI-Fi³² wireless CDC Modem Bluetooth™	One M None One C	lini PC ommu	I type III unication	` s Daughter (unicátio Card (CI	ns Bay) / no DC) socket /	nector t customer u not accessib ent® chip set	le	ole		License - Lotus®SmartSuite®Millennium and Lotus Notes® Client 5.0
Ethernet Audio support Security	10/100 Soft au stereo microp Power	udio / S speal shone -on pa	SoundBla kers / 1 w input jac assword /	att / volume k (3.5 mm) / hard disk p	tible / Ar up, dow headph assword	nalog Device n, mute but one jack (3.5 d / superviso	r password	ernal micr / security	ophone / keyhole		Ultrabay Plus integrated modular bay supports most Ultrabay 2000 devices including CD-RW/DVD Combo drive, diskette drive, or Zip drive; the optional Ultrabay Plus Device Carrier adds potential
Limited warranty ¹²	Limited warranty ¹² 3 years /1 year battery - EasyServ ^{TM,19} onsite pickup and delivery / warranty service upgrades ²²										functionality by supporting the Ultrabay Plus Numeric Keypad and Cradle for the WorkPad® c500 Series Other options at ibm.com/pc/us/accessories
64MB SO DIMM 133MHz NP SDRAM 128 MB SO DIMM 133MHz NP SDRAM 156 MB SO DIMM 133MHz NP SDRAM 1512 MB SO DIMM 133MHz NP SDRAM 151										Universal 72 watt AC adapter PC 2001-compliant CIM and DMI 2.0-compliant IBM ImageUltra Services available IBM Rapid Restore PC available to protect software image and data Personalized Web-based support ³¹ Setup Guide, Service and Troubleshooting Guide, Windows manual International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free hardware support during the warranty ¹²	

T 1.1 B	OU . Marrier 11 . O	Dist. Cultural	Mini PCI Comm Bay	CDC		Workhorse (W) Security or Global (G) Av
Type-model Proces 2656-A4U Celeror			wireless/modem Open		planar 10/100	Chip Preload model da Windows® 2000 Feb 200
2656-AEU Celeror	1.06 128MB 13.3" XGA		Wi-Fi ³² /mod		10/100	Windows 2000 Feb 200
	III-M 1.00 128MB 14.1" XGA		Open	Modem		Windows 2000 G Mar 200
	III-M 1.13 128MB 13.3" XGA III-M 1.13 128MB 14.1" XGA		Wi-Fi/modem Wi-Fi/modem		10/100 10/100	Windows 2000 Feb 200 Windows 2000 W G Feb 200
2656-E4U Pentiur			Open	Modem		Windows 2000 W G Feb 200 Windows 2000 W G Feb 200
2656-E7U Pentiur			Open	Modem		Yes Windows 2000 Feb 200
2656-HEU Pentiur	III-M 1.13 128MB 14.1" XGA	40GB DVD/CD-RW	Wi-Fi/modem	None	10/100	Yes Windows 2000 Feb 200
Positioning	Best blend of portability and esse					SOFTWARE ¹⁴
Processor	ntel® Mobile Celeron™ 1.06GH ntel Mobile Pentium® III-M 1.0	r 1 133MHZ Front or 1 13GHz with Sne	I Side Bus or edsten™techno	ology¹ with		Windows 2000 models
	33MHz Front Side Bus	or intoding with ope	castop toorino	nogy with		- Microsoft Windows 2000
L2 cache	Celeron: 256KB / at processor spe					Professional ²⁰
Memory	28MB ⁹ standard / 1GB maximur 44-pin SO-DIMM sockets / std m				3v / two	- ConfigSafe®
Diskette drive	None standard / use optional Ultra					
CD-ROM	Some: CD-ROM / 24X-10X9 spee			unve		(iiiiiiddeirecivieci araaeii)
CD-RW	Some: CD-RW / 8X/4X/24X Maxº	/ removable				INOLUDED COETWADE 14
DVD-ROM	Some: DVD-ROM/8X-3.3X ⁹ spe	ed / removable	/			INCLUDED SOFTWARE ¹⁴
Ultrabay 2000	Some: DVD-ROM/CD-RW combo One modular bay for interchange				atihla	Preloaded • Access ThinkPad
Disk	20, 30, or 40GB ⁸ (4200 rpm) / upg	radeable / S.M.A.R.T	. /	ido compi	alibio	- Access Connections
	supports 2nd disk with optional H	DD Adapter in Ultraba	ay			- Access Help
Display	Some: 13.3" (337.8mm) XGA (10	24x768) TFT color /	Active Matrix			- Access Support
	Some: 14.1" (358.1mm) XGA (10					 Adobe® Acrobat InterVideo WinDVD (DVD models)
Graphics controller	ntel 830MG Integrated Direct A controller dynamically allocates 8	GP 3D / Unified Mem	ory Architecture	e / in GMC	H/	Norton AntiVirus
Graphics - external	entroller dynamically allocates 8 External SVGA to various modes				00	 PC-Doctor[™] ThinkPad Utilities
Keyboard	37-key / ThinkPad Button / palm r					IBM Update Connector™.15
rtoyboara	nternet Scroll Bar¹³ / pitch: 19mm	; stroke: 2.7mm				Veritas RecordNOW (CD-RW mod
ThinkLight™	lluminates the keyboard to impro	e visibility in low-ligh	t conditions			Downloadable
<u>UltraPort™</u>	None	- 4 00				IBM Rapid Restore™ PC
Dimensions ³	2.3" x 10.0" x 1.42" / 313mm x 2 v/ battery and: <i>CD-ROM:</i> 5.8 lbs;		N with 13 3"·6 0) lhe·		IBM Data Transfer
Approximate weight	CD-RW with 14.1: 6.1 lbs; DVD/C	D-RW: 6.1 lbs	v wiiii 10.0 . 0.0	7 103,		Universal Manageability Services IPM Client Security Sethware (for
Case material	Color: black; All: ABS plastic					IBM Client Security Software (for security chip)
Battery - type Battery - life ¹⁰	.ithium Ion 6-cell / intelligent / no s Deleron models: 2.4 to 2.6 hrs; F	second battery in Ultra	bay Plus I to 3.1 bre			License
Architecture						- Lotus® SmartSuite® Millennium
Architecture	ntel 830MG chipset / 82830MG (32801CAM ICH3-M I/O Controlle				Pin	and Lotus Notes® Client 5.0
	Count bus, ethernet, AC-Link) / P	CI bus 2.2 32-bit, 33N	//Hz (TI® PCI141	10A CardE	Bus, Mini	i
David David Santau	CI) /Firmware Hub / LPC bus 33			r parallel,	infrared))
Port Replicator PC Card Std slots	Optional ThinkPad Port Replica One Type II or one Type III / Card	Bus 32-bit / PCMCIA	2 1 / no Zoome	d Video		
Ports	wo USB (Version 1.1) / parallel /	external DB-15 moni	tor / infrared (4N	Mbps)/		
	RJ-11 (modem) / RJ-45 (ethernet			rt		
Video out	S-video out port (TV out) / one inc					
Mini PCI Wi-Fi ³² /modem	One Mini PCI type III slot (Commu Some: Mini PCI Wi-Fi ³² wireless ⁴ ,				do of	
vvi-i i /iiioueiii	display and in base), Wi-Fi	-certified/		11100 (111 510	u0 01	
	56K6 V.90 (V.92-designed	²⁹) modem combo, Lu				Ultrabay Plus integrated modular
CDC Modem	One Communications Daughter (Some: 56K ⁶ V.90 (V.92-designed	ard (CDC) socket (op	en or modem) / i	not access	sible	bay supports most Ultrabay 2000
Bluetooth™	<i>some.</i> 36K° v.90 (v.92-designed Jone	, obo modem card	, Luosiii Giilp 8	501		devices including CD-RW/DVD
Ethernet	0/100 ethernet on planar / Intel®		AD465::: : =			Combo drive, diskette drive, or Zip drive; the optional Ultrabay Plus
Audio support	Soft audio / SoundBlaster-compa stereo speakers / 1 watt / volume					Device Carrier adds potential
	nicrophone input jack (3.5 mm) /			microphoi	16 /	functionality by supporting the
Security	Power-on password / hard disk pa	assword / súpervisor	pasśword / secu			Ultrabay Plus Numeric Keypad and Cradle for the WorkPad® c500
	Some: IBM Embedded Security authentication / local file e			e / multi-fa	ctor	Series
Limited warranty ¹²	year - EasyServ ^{TM,19} onsite picku	71		vailable		1
	· · · · · · · · · · · · · · · · · · ·	·			W0076	Universal 72 watt AC adapter
	33MHz NP SDRAM				K9276 K9603	PC 2001-compliant
256 MB SO DIMM	33MHz NP SDRAM 19K4654	ThinkPad R30/R31		02	K6821	CIM and DMI 2.0-compliant
	33MHz NP SDRAM 19K4656				K6699	IBM ImageUltra Services available IBM Rapid Restore PC available to
IBM 32MB USB M SuperDisk (LS-24					2K8667	protect software image and data
Zip 250MB Ultraba		2000 media a	ınd storage devi	ices) 19	K4480	Personalized Web-based support ³¹
24X-10X CD-ROM	Ultrabay 2000 Drive 05K9233	20GB Hard Disk 9.	5mm (42Ŏ0 rpm)) 08	K9686	Setup Guide, Service and Trouble-
	-RW Ultrabay 2000 22P910				K9816 K9688	shooting Guide, Windows manua International Warranty Service ¹⁷
	VD Ultrabay 2000 22P9102 to III Ultrabay 2000 22P6980	ServicePac®,21 1vr	IOR 9x5 NBD	. 30	L9188	24 hour x 7 day18 toll-free hardware
Second HDD Ada	er for Ultrabáy 2000 08K6068	ServicePac 2yr IO	R 9x5 NBD	30	L9189	support during the warranty ¹²
IBM ThinkPad Ulti					L9195 L9191	
	bay Plus c500 Cradle 22P5738 Plus Numeric Keypad 22P7330	0 1 0 0 00			L9191	
	n.com/pc/us/accessories		F			
		•				(DO1)MOK) @ IDM Corre Decomber 0

Type-model Proce	essor Speed Memory ¹¹	Screen Di	sk Optical	Mini PCI Comm Bay	CDC	Ethernet on Se planar			Avail date
2656-88U Pentiun 2656-77U Pentiun 2657-99U Pentiun 2657-88U Pentiun 2657-77U Pentiun	1° III-M 1.06 128MB 13 11II-M 1.06 128MB 14 11II-M 1.06 128MB 14 11II-M 1.06 128MB 13 11II-M 1.06 128MB 14 11II-M 1.06 128MB 14	.1" XGA 30 .1" XGA 20 .3" XGA 20 .1" XGA 30 .1" XGA 20	GB DVD/CD-RW GB CD-RW GB CD-RW GB DVD/CD-RW GB CD-RW	Wi-Fi/modem Wi-Fi/modem Wi-Fi/modem Wi-Fi/modem	None None None None	10/100 10/100 10/100 10/100 10/100 10/100	No Windows® XP Pro No Windows XP Pro	1 yr Apr 20 1 yr Apr 20 1 yr Aug 20 3 yr Apr 20 3 yr Apr 20 3 yr Aug 20	002 2002 002 002
Qualifie exclusiv	educational models of the d institution/customer is vely for educational purpo del for education is for sa	a public or p oses for use	rivate K-12 (or hig by Qualified Stude	her) accredited s ents and/or Quali	chool o	rganized a achers.	and operated		
	del or models for educati	on are not a	vailable for resale	to any other orga					
Positioning Processor L2 cache Memory	Best blend of portability Intel® Mobile Pentium® 133MHz frontside bus 512 KB / at processor sp 128MB standard / 1GB 3.3v / two 144-pin SO-E	eed / ECC max ⁷ / SDR	iHz with Speedste AM / non-parity / 1	p™ technology¹ w 33MHz / PC133-	complia		SOFTW Windows XP Pro m - Microsoft® Window Professional® Disk-to-Disk Reco	odels vs® XP very	
Diskette drive CD-RW DVD-ROM/CD-RW Ultrabay 2000 Disk	None standard / use opt Some: CD-RW / 8X/4X/ / Some: DVD-ROM/CD-F One modular bay for inte 20 or 30GB ⁸ (4200 rpm) supports 2nd disk with o	24X Max ⁹ / r RW combo / erchangeab / upgradeal	removable 8X/8X/24X/8X ²¹ s le devices (right sid ble / S.M.A.R.T. /	peed / removable de) / Ultrabay™ P	;	npatible	(in hidden Service INCLUDED SOFTW Preloaded Access ThinkPad Access Connecti	'ARE¹⁴ (all)	
Display	Some: 13.3 " (337.8mm Some: 14.1 " (358.1mm						- Access Help - Access Support		
	Intel 830MG Integrated controller dynamically a External SVGA to variou 87-key / ThinkPad Butto Internet Scroll Bar ¹³ / pit	llocates 8 to us modes su on / palm res	o 32MB ¹¹ of system uch as 16.7 million st / TrackPoint®, "P	n mémory for grap colors, 85Hz, or	ohics		Adobe® Acrobat InterVideo WinDVI Norton AntiVirus PC-Doctor™ ThinkPad Utilities IBM Update Conne	,	els)
ThinkLight™ UltraPort™	Illuminates the keyboard None	d to improve	visibility in low-lig	ht conditions			Veritas RecordNO Downloadable		
Dimensions ³ Approximate weight ⁴ Case material Battery - type Battery - life ¹⁰	12.3" x 10.0" x 1.42" / 3 2 w/ battery and: 13.3" TF Color: black; All: ABS p Lithium Ion 6-cell / intell 2.9 hrs	T: 6.0 lbs (2 lastic	2.7kg); <i>14.1" TFT:</i>	ν ο,			IBM Rapid RestorIBM Data TransferIBM Director AgerLicense	•	
Architecture Port Replicator PC Card Std slots Ports	Intel 830MG chipset / 8. 82801 CAM ICH3-M I/O bus, ethernet, AC-Link) Firmware Hub / LPC bu: Optional ThinkPad Por One Type II or one Type Two USB (Version 1.1). RJ-11 (modem) / RJ-45	Controller F / PCI bus 2. s 33MHz (Note that the control of the co	Hub (ATA-100/66 E 2 32-bit, 33MHz (* S PC87392VJG S r (no ThinkPad Do us 32-bit / PCMCI/ xternal DB-15 mor	EIDE, PCI bus, US II® PCI1410A Ca uper I/O for paral ock support) A 2.1 / no Zoome nitor / infrared (4N	SB, Low rdBus, lel, infra d Video (lbps) /	v Pin Cou Mini PCI) ared)	- Lotus® SmartSuite and Lotus Notes® (
Video out Mini PCI Wi-Fi ³² /modem	S-video out port (TV out One Mini PCI type III slo Mini PCI Wi-Fi ³² wireles display and in base), Wi- 56K ⁶ V.90 (V.92-design	ot (Communi s⁴, Intersil® F Fi-certified / ed²9)modem	ications Bay) / not Prism 2.5 chipset, c r combo, Lucent® c	customer upgrac dual antennas (in hipset	leable side of				
CDC Open Ethernet Audio support	One Communications D One Communications D 10/100 ethernet on plan Soft audio / SoundBlast stereo speakers / 1 watt microphone input jack (3 Power-on password / ha	laughter Cal laughter Cal ar / Intel® 82 er-compatib : / volume up 3.5 mm) / he ard disk pas	rd (CDC) socket / r rd (CDC) socket op 2562ET chipset (ph ole / Analog Device op, down, mute butt badphone jack (3.5 sword / supervisor	not accessible pen hysical layer) ss AD1881A AC9 ons / no internal r mm) r password / secu	nicroph ırity key	one / rhole	Ultrabay Plus integrated bay supports most Uldevices including CD Combo drive, diskett drive; the optional Ult Device Carrier adds pfunctionality by supports.	trabay 2000 -RW/DVD e drive, or Zip rabay Plus potential orting the)
Limited warranty ¹²	2656: 1 year - EasySer 2657: 3 years/1 year ba available 133MHz NP SDRAM	v ^{™,19} onsite attery - Easy 19K4650	pickup and deliver Serv onsite pickur USB Portable Dis	and delivery / se	les ²² ava	ailable ogrades 05K9276	Ultrabay Plus Numer Cradle for the WorkP Series		d
128 MB SO DIMM 256 MB SO DIMM 512 MB SO DIMM SuperDisk (LS-24 Zip 250MB Ultrab 24X-10X CD-ROM 8X/4X/24X Max C Ultralight 8X Max CD-RW/DVD Con Second HDD Ada IBM ThinkPad Ult IBM ThinkPad Ultraba	133MHz NP SDRAM 133MHz NP SDRAM 133MHz NP SDRAM 0) UltraBay 2000	19K4652 19K4654 19K4656 08K9616 00N8253 05K9233 22P9101 22P9102 22P6980 08K6068 22P5737 22P5738 22P7330	ThinkPad R30/R3 ThinkPad 72W A0 ThinkPad Port Re Portable Drive Ba	B1 Li-Ion Battery C Adapter epilicator by 2000 (accepts and storage dev 9.5mm (4200 rpm sk 9.5mm (5400) sk 12.5mm (5400) sk 1	ices)) pm) rpm) NBD) oot oot	02K6821 02K6699 02K8667	Universal 72 watt AC PC 2001-compliant CIM and DMI 2.0-coi IBM ImageUltra Sen IBM Bapid Restore F	mpliant vices available PC available nage and dat ased support e and Trouble indows manu ty Service -free hardwa	to ta tt ³¹ le- iual

	Speed	Disk		Mini PCI Comm Bay	CDC	Ethernet	IEEE	Workhorse (W) or Global (G) Avail		
Type-model Processor	r GHz Memory ¹¹ Scre		Optical	wireless/modem		on planar	1394	Preload model date		
2656-2VU Celeron 2656-1FU Celeron 2656-1GU Celeron	1.13 128MB 14.1". 1.13 128MB 13.3". 1.13 128MB 14.1". 1.13 128MB 14.1". 1.13 128MB 13.3".	XGA 20GB	CD-ROM CD-ROM CD-RW DVD CD-ROM	Open Wi-Fi ³² /modem Open Open Open	Modem Modem Open Modem Modem Modem Modem	10/100 10/100 10/100 10/100	1394	Windows® XP Pro No Jun 2002 Windows XP Home No Windows XP Home No Aug 2002		
Positioning Processor L2 cache Memory	Best blend of portabili Intel® Mobile Celeror 256KB / at processors 128MB standard / 1G 3.3v / two 144-pin SO	n [®] 1.13GHz speed / ECC B max ⁷ / SDF -DIMM socke	with 133MH RAM / non-pets / std me	dz frontside bús parity / 133MHz / m in one socket /	PC133 / one sock		able	SOFTWARE ¹⁴ Windows XP Home models - Microsoft® Windows® XP Home ²⁰ Disk-to-Disk Recovery (in hidden Sortion Portition)		
Diskette drive CD-ROM CD-RW DVD-ROM Ultrabay 2000 Disk	None standard / use o Some: CD-ROM / 24) Some: CD-RW / 8X/4 Some: DVD-ROM / 8X One modular bay for ir 20GB* (4200 rpm) / usupports 2nd disk with	X-10X ⁹ speed X/24X Max ⁹ X-3.3X Max ⁹ nterchangeal ogradeable /	d / removab / removable / removable ble devices S.M.A.R.T.	le from Ultrabay 2 e from Ultrabay 2 e from Ultrabay 2 (right side) / Ultra /	2000 000 000		atible	(in hidden Service Partition) Windows XP Pro models - Microsoft® Windows® XP Professional® ⇒ Disk-to-Disk Recovery (in hidden Service Partition)		
Display	Some: 13.3 " (337.8m Some: 14.1 " (358.1m							INCLUDED SOFTWARE14 (all)		
Graphics controller Graphics - external Keyboard	Intel 830MG Integrat controller dynamically External SVGA to vari 87-key / ThinkPad But Internet Scroll Bar ¹³ / p	me: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix el 830MG Integrated Direct AGP 3D / Unified Memory Architecture / in GMCH / ntroller dynamically allocates 8 to 32MB ¹¹ of system memory for graphics ternal SVGA to various modes such as 16.7 million colors, 85Hz, or 1600x1200 key / ThinkPad Button / palm rest / TrackPoint®, "Press-to-Select," ernet Scroll Bar ¹³ / pitch: 19mm; stroke: 2.7mm Preloaded • Access ThinkPad • Access Help • Access Support • Adobe® Acrobat Reader								
ThinkLight™ UltraPort™	Illuminates the keyboo None	ard to improv	e visibility ir	1 low-light conditi	ons			 InterVideo WinDVD (DVD models) Norton AntiVirus 		
Dimensions ³ Approximate weight ² Case material Battery - type Battery - life ¹⁰	12.3" x 10.0" x 1.42" / w/ battery and: <i>CD-RC Color:</i> black; <i>All:</i> ABS Lithium Ion 6-cell / inte 2VU: 2.4 hrs; <i>Others:</i>	<i>DM:</i> 5.8lb (2.6 5 plastic elligent / no se	 PC-Doctor™ ThinkPad Utilities IBM Update Connector™.15 Veritas RecordNOW (CD-RW mod) Downloadable 							
Port Replicator PC Card Std slots Ports Video out IEEE 1394 (FireWire) Mini PCI	Intel 830MG chipset / 82801CAM ICH3-M I/ Count bus, ethernet, / Mini PCI, TI TSB43AE LPC bus 33MHz (NS I Optional ThinkPad Pc One Type II or one Ty Two USB (Version 1.1 (modem) / RJ-45 (ethe S-video out port (TV o Some: IEEE 1394 (Fir One Mini PCI type III s	O Controller AC-Link) / PC 322 IEEE 133 PC87392VJG ort Replicate pe III / CardE i) / parallel / e ernet) / IEEE ut) / one indu reWire) Port	Hub (ATA- I bus 2.2 3: 34) / Firmwa 3 Super I/O or (no Think 3 us 32-bit / external DB 1394 (4-pin 1stry standa (4-pin)	100/66 EIDE, PC 2-bit, 33MHz (TI® are Hub / for parallel, infra kPad Dock suppo PCMCIA 2.1 / no k-15 monitor / infra n) / no keyboard of ard connector	I bus, US PCI1410 red) irt) Zoomed ared (4M or mouse	B, Low P DA CardE Video bps) / RJ or serial	Bus, I-11	 IBM Rapid Restore™ PC IBM Data Transfer IBM Director Agent License (CD not included) Lotus® SmartSuite® Millennium and Lotus Notes® Stand Alone Client 		
Wi-Fi ³² /modem	Some: Mini PČİ Wi-Fi display and in I	i ³² wireless⁴, base), Wi-Fi-	Intersil® Pris certified /	sm 2.5 chipset, du	ual antenr	eable nas (in sid	de of	Illerahay Plus intograted modular		
CDC Modem Ethernet Audio support	display and in base), Wi-Fi-certified / 56K° V.90 (V.92-designed²9) modem combo, Lucent® chipset One Communications Daughter Card (CDC) socket (open or modem) / not accessible Some: 56K° V.90 (V.92-designed²9) CDC modem card / Lucent® chip set 10/100 ethernet on planar / Intel® 82562ET chipset Soft audio / SoundBlaster-compatible / Analog Devices AD1881A AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm)							Ultrabay Plus integrated modular bay supports most Ultrabay 2000 devices including CD-RW/DVD Combo drive, diskette drive, or Zip drive; the optional Ultrabay Plus Device Carrier adds potential functionality by supporting the		
Security Limited warranty ¹²	Power-on password /						ole	Ultrabay Plus Numeric Keypad and Cradle for the WorkPad® c500		
64 MB SO DIMM 13 128 MB SO DIMM 13		19K4650 19K4652	BM USB P	ortable Diskette I USB 2.0 Memory	Drive	05l 22l	K9276 P8998 P2698	Series		
512 MB SO DIMM 1: SuperDisk (LS-240) Zip 250MB Ultrabay 24X-10X CD-ROM U 8X/4X/24X Max CD- Ultralight 8X Max D CD-RW/DVD Comb Second HDD Adapti IBM ThinkPad Ultral IBM ThinkPad Ultral ThinkPad Ultrabay F Portable Drive Bay 2 2000 media an	MB SO DIMM 133MHz NP SDRAM MB SO DIMM 133MHz NP SDRAM HSO DIMM 133MHz NP SDRAM HSW SD DIMM 14552 HSW USB 2.0 CardBus Adapter HSW USB 2.0 CardBus Adapter HSW USB 2.0 CardBus Adapter HSW LSB 2.0 CardBus Adapter HSW USB 2.0 CardBus Adapter HSW USB 2.0 CardBus Adapter HSW USB 2.0 CardBus Adapter HSW LSB 2.0 CardBus Adapter HSW USB 2.0 CardBus Adapter HSW LSB 2.0 CardBus Adapter HSW LS						Universal 72 watt AC adapter PC 2001-compliant CIM and DMI 2.0-compliant IBM ImageUltra Services available IBM Rapid Restore PC available to protect software image and data Personalized Web-based support ³¹ Proactive e-mail updates ³¹ Setup Guide, Service and Trouble-shooting Guide, Windows manual International Warranty Service ¹⁷ 24x7 ¹⁸ toll-free support for warranty-related issues during the warranty period ¹²			

2000 media and storage devices) ThinkPad Port Replicator

19K4480 02K8667

Type-model Proces	Speed sor GHz Men	ory ¹¹ Scree	Disk n GB ⁸	Optical in Ultrabay 2000	Mini PCI Comm Bay wireless/modem	CDC modem		IEEE 1394	Workhorse (W) or Global (G) Avail Preload model date		
2656-L2U Celero 2656-M2U Celero 2656-NYU Celero 2656-L1U Celero 2656-LBU Celero 2656-NAU Celero	n 1.2 128 n 1.2 128 n 1.2 128 n 1.2 128 n 1.2 256	MB 13.3" X0 MB 13.3" X0 MB 14.1" X0 MB 14.1" X0 MB 13.3" X0 MB 14.1" X0 MB 14.1" X0	GA 20GB GA 20GB GA 20GB GA 20GB GA 30GB	CD-ROM CD-ROM Combo III CD-ROM None (open	Open Wi-Fi ³² /modem Open Open Open Open Open	Modem Open Modem Modem Modem Modem Modem	10/100 10/100 10/100 10/100	1394	Windows® XP Pro No Sep 2002 Windows XP Home No Sep 2002 Windows XP Home No Sep 2002 Windows XP Home No Sep 2002		
Positioning						n			SOFTWARE ¹⁴		
Processor L2 cache Memory	Processor Intel® Mobile Celeron® 1.20GHz with 133MHz frontside bús L2 cache 256KB / at processor speed / ECC										
Diskette drive CD-ROM Combo DVD-ROM Ultrabay 2000 Disk	Some: CD-F Some: DVD- Some: DVD- One modular	OM / 24X-10 ROM/CD-R\ ROM / 8X-3 bay for inter rpm) or 30G	OX ⁹ speed N Combo 3X Max ⁹ / changeab B (4200 ri	/ removable f III / 16X/10X/ removable fr le devices (rig om) / upgrada	r USB-based disk from Ultrabay 200 24X/8X ²¹ / removi om Ultrabay 2000 ght side) / Ultraba y able / S.M.A.R.T. Jltrabay	00 able from) y™ Plus -0	Ultrabay 2		(in hidden Service Partition) Windows XP Pro models - Microsoft® Windows® XP Professional® ♦ Disk-to-Disk Recovery (in hidden Service Partition)		
Display					color / Active Mat color / Active Mat				INCLUDED SOFTWARE ¹⁴ (all)		
Graphics controller Graphics - externa	Intel 830MG controller dy External SV	Integrated amically allo A to various	Direct AG ocates 8 to modes su	P 3D / Unified 32MB ¹¹ of syuch as 16.7 m	d Memory Archite ystem memory for hillion colors, 85H.	cture / in r graphics z, or 1600	3		Preloaded Access ThinkPad Access Connections Access Help		
Keyboard ThinkLight™	Internet Scro	I Bar13 / pitcl	ո։ [՝] 19mm; ։	stroke: 2.7mn	t®, "Press-to-Sele ow-light conditions	,	aPort™		- Access Support - Adobe® Acrobat Reader InterVideo WinDVD (DVD models)		
Dimensions ³ Approximate weight	12.3" x 10.0" ² w/ battery an	d: <i>CD-ROM:</i>	5.8 lb (2.6	32kg); <i>DVD:</i> 5	5.75 lb (2.61kg); 3 <i>U:</i> 5.3 lb (2.41kg)				Norton AntiVirus (OEM Edition) PC-Doctor™ ThinkPad Utilities		
Case material Battery - type Battery - life ¹⁰	Color: black; Lithium Ion 6 Wireless L6U		 IBM Update Connector™.15 IBM RecordNOW and DLA by Veritas® (combo models) IBM Rapid Restore™ PC 								
Architecture	82801CAM I Count bus, e Mini PCI, TI	CH3-M I/O C hernet, AC- SB43AB22	ontroller F Link) / PCI IEEE 1394	lub (ATA-100 bus 2.2 32-b 4) / Firmware	ory Controller Hub 0/66 EIDE, PCI bu it, 33MHz (TI® PC Hub / r parallel, infrared	ıs, USB, I 011410A (₋ow Pin		Downloadable IBM Director Agent Software Delivery Assistant System Migration Assistant		
Port Replicator PC Card Std slots Ports	One Type II o Two USB (Ve (modem) / R	r one Type rsion 1.1) / p -45 (etherne	II / CardB parallel / e et) / IEEE	us 32-bit / PC xternal DB-15 1394 (4-pin) /	monitor / infrare no keyboard or n				License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Video out IEEE 1394 Mini PCI Wi-Fi ³² /modem	Some: Mini F	1394 (FireŴ type III slot 'CI Wi-Fi ³² w	ire) Port (4 (Commun ireless ⁴ , In	1-pin) ications Bay) itersil® Prism :	/ not customer up 2.5 chipset, dual a	ogradable antennas	e (in side of		Ultrabay Plus integrated modular		
CDC Modem Ethernet Audio support	display and in base), Wi-Fi-certified / 56K° V.90 (V.92-designed²º) modem combo, Lucent® chipset CDC One Communications Daughter Card (CDC) socket (open or modem) / not accessible Modem Some: 56K° V.90 (V.92-designed²॰) CDC modem card / Lucent® chip set Ethernet 10/100 ethernet on planar / Intel® 82562ET chipset								bay supports most Ultrabay 2000 devices including CD-RW/DVD Combo 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		
Security Limited warranty ¹²					rvisor password / / service upgrades				Series		
64 MB SO DIMM 128 MB SO DIMM 256 MB SO DIMM 512 MB SO DIMM	1 133MHz NP 1 133MHz NP 1 133MHz NP	SDRAM SDRAM SDRAM	19K4650 19K4652 19K4654	IBM 128MB IBM USB 2. IBM ThinkPa	USB 2.0 Memory 0 Portable CD-RV ad USB 2.0 Cardi erial Parallel Adap	Key W Drive Bus Adap	22P8 22P8	297 245			
ThinkPad Remov Zip 250MB Ultrab 24X-10X CD-ROI Ultralight 8X Max CD-RW/DVD Cor Second HDD Ada IBM ThinkPad Ult IBM ThinkPad Ultraba Portable Drive Ba 2000 media ThinkPad Port Re	able Diskette ay 2000 Drive of Ultrabay 20 of the Distribution of	Orive 2000	08K9603 00N8253 05K9233 22P9102 22P6980 08K6068 22P5737 22P5738 22P7330 19K4480 02K8667	ThinkPad R. ThinkPad 72 20GB Hard 40GB Hard 40GB HS Hard 60GB HS Has ServicePac	30 Series Li-Ion È 2W AC Adapter Disk Drive Disk Drive ard Disk 9.5mm (5 ard Disk 12.5mm (5 ard Disk 12.5mm (5 2yr IOR 9x5 NBL 3yr IOR 9x5 NBL 4yr IOR 9x5 NBL 2yr P&L P/U Dep 2yr P&L P/U Dep	5400 rpm) (5400 rpm) (5400 rpm) NBD))))) oot	02K6 02K6 08K9 08K9 08K9 08K9 30L9 30L9 30L9 69P9 69P9	8821 8699 9686 9687 9816 9688 188 189 195 9194 9196 191	Universal 72 watt AC adapter PC 2001-compliant CIM and DMI 2.0-compliant ACPI 1.0b and 2.0-compliant IBM ImageUltra™ Services available IBM Rapid Restore PC available to protect software image and data Personalized Web-based support³¹ Proactive e-mail updates³¹ Proactive e-mail updates³¹ Setup Guide, Service and Trouble-shooting Guide, Windows manual International Warranty Service¹²		
IBM High Rate W IBM USB Portable Other options at ib	e Diskette Dri	re	09N9904 05K9276	ServicePac	3yr P&L P/U Dep 4yr P&L P/U Dep 5yr P&L P/U Dep	ot	30L9 69P9 69P9	195	24x7 ¹⁸ toll-free support for warranty- related issues during the warranty period ¹²		

			Mire! DO!	F	haur	IEEE		Dealson	Cmall M:	ا د ماداد	(141)	
Type-model Proces	Speed ssor GHz Memory Screen	Disk GB [®] Optical	Mini PCI Comm Bay wireless/modem	CDC	hernet on olanar		Securit Chip	y b	Small Wo usiness or oftware	Globa mode	ıl (Ġ) Ava	
2658-ADU Pentium 2658-AEU Pentium 2658-AFU Pentium 2658-CZU Pentium 2658-AGU Pentium 2658-DAU Pentium	** 4-M 1.6 128MB 14.1" XG 4-M 1.6 128MB 14.1" XG 4-M 1.6 128MB 14.1" XG 4-M 1.6 128MB 14.1" XG 4-M 1.8 256MB 14.1" XG 4-M 1.6 128MB 14.1" XG 4-M 1.6 256MB 14.1" XG	A 20GB CD-RW A 30GB Combo A 30GB Combo A 40GB Combo A 20GB CD-RO A 20GB DVD	/ Open Wi-Fi ³² /modem Open Open	Modem 1 Modem 1 Modem 1	0/100 0/100 0/100 0/100	1394		XP Pro XP Pro XP Pro XP Pro XP Pro XP Pro XP Pro		No No No No No	Jun 200 Jun 200 Jun 200 Jun 200 Jun 200 Jun 200 Jun 200	
	Act Agreement (TAA)-com											
Positioning TAA-compliant	Best blend of portability at Trade Act Agreement-co		res; two-spindle sy	stem					SOFTWA			
Processor L2 cache Memory	Mobile Intel® Pentium® 4 enhanced Intel SpeedSte 512KB / on die (at proces 128 or 256MB std / 1GB	Processor-M 1.6 p [™] technology¹ a sor speed) / ECC max ⁷ / PC2100 26	nd 400MHz fronts 66MHz DDR-SDR	AM / non-p			- N F ⇔E	Aicrosoft® Profession Disk-to-Dis	sk Recove	® XP	n)	
Diskette drive CD-ROM CD-RW DVD Combo Ultrabay 2000 Disk	two 200-pin SO-DIMM sockets / std memory in one socket / one socket available None standard / use optional Ultrabay™-based or USB-based diskette drive Some: CD-ROM / 24X-10X° speed / bootable / removable from Ultrabay 2000 Some: DVD-ROM / 8X/4X/24X Max³ / bootable / removable from Ultrabay 2000 Some: DVD-ROM / 8X-3.3X³ speed / bootable / removable from Ultrabay 2000 Some: DVD-ROM/CD-RW / 8X/8X/24X/8X²¹ speed / removable from Ultrabay 2000 One modular bay for interchangeable devices (right side) / Ultrabay Plus-compatible 20GB³, 30GB, or 40GB / 4200 rpm / upgradeable / S.M.A.R.T. / supports 2nd disk with optional HDD Adapter in Ultrabay 2000 INCLUDED SOFTWARE¹⁴ (all)										n)	
Display	14.1" (358.1mm) XGA (10 Easy-open cover to unlate	024x768) TFT col	or / Active Matrix /					eloaded Access Th	inkPad			
Graphics controller Graphics - external	ATI® Mobility™ Radeon External monitor support				at 85Hz	/ DDC	2B -	Access Co Access H Access So		S		
Keyboard TrackPoint® ThinkLight™	87-key / ThinkPad Buttor TrackPoint®pointing devi Illuminates the keyboard	ce, "Press-to-Sele	ect," Internet Scro	II Bar¹³,`ma	gnifying	g glass	• A • II • N	Adobe Acr nterVideo Vorton Ant	obat Read WinDVD iVirus (OE	(DVD		
Dimensions ³ Approximate weight ² Case material Battery - type Battery - life ¹⁰	12.3" x 10.0" x 1.5"; 313m with optical drive and batt Color: black; All: ABS platithium Ion 8-cell / intellig Wireless models: 3.0 hrs	ery: 5.9 to 6.2 lbs astic ent / supports uni	(2.6 to 2.7 kg) de			I	Norton AntiVirus (OEM edition) PC-Doctor™ ThinkPad Utilities Veritas RecordNOW (CD-RW mo IBM Update Connector™.15					
Architecture Port Replicator PC Card Std slots Ports	Intel 845MP chipset / 828 82801CAM ICH3-M I/O C Low Pin Count (LPC) intel PCI1410A CardBus contributed the Control LPC bus 33MHz (security Optional ThinkPad Port One Type II or one Type Two USB (Version 1.1) / RJ-11 (modem) / RJ-45 (• II • II • II • C • C • C	 Downloadable IBM Rapid Restore™ PC IBM Data Transfer IBM Director Agent Client Security Software (security chip models) License (CD not included) Lotus® SmartSuite® Millennium an Lotus Notes® Stand Alone Client 			nium and						
Video out IEEE 1394 (FireWire Mini PCI Wi-Fi ³² /modem	S-video out port (TV out) s)Some: IEEE 1394 (FireW One Mini PCI type III slot Some: Mini PCI Wi-Fi ³² v display and in bas	/ one industry sta fire) port / 4-pin co (Communications vireless ⁴ , Intersil® e), Wi-Fi-certified	ndard connector onnector s Bay) / customer Prism 2.5 chipset, /	upgradeab dual anten	le ^{4,36}	side of	on - N E	 Office XP Small Business model only (2658-AGU/DAU) Microsoft Office XP Small Business²⁸ (Word, Excel, Outlook, Publisher, Small Business Tools) Office XP Small Business CD 				
CDC Modem Ethernet Audio support Security	56K ⁶ V.90 (V.92-designed ²⁹) modem combo, Agere® chipset One Communications Daughter Card (CDC) socket (open or modem) / not accessible Some: 56K ⁶ V.90 (V.92-designed ²⁹) modem in CDC / Agere® chipset 10/100 ethernet on motherboard / Intel 82562ETchipset (physical layer) Soft audio / ICH AC97 controller / SoundBlaster Pro™-compatible / AD1881A AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / no internal mic / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack								Universal 72 watt AC adapter Asset ID (system-specific info in chi accessed over network) PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.0-compliant IBM ImageUltra Services available			
Limited warranty ¹²	1 year - EasyServ™,19 on	site pickup and de	elivery / service up	grades22 av	ailable				ftware ima I Warranty			
256 MB PC2100 DE 512 MB PC2100 DE IBM ThinkPad Ultra IBM ThinkPad Ultra ThinkPad Ultrabay	28 MB PC2100 DDR-SDRAM CL2.5 SOD 10K0028 Portable Drive Bay 2000 (accepts Ultrabay 2000 media and storage devices) 19K4480 ThinkPad Ultrabay Plus Carrier 22P5737 Ultrabay 2000 media and storage devices) 19K4480 Ultrabay Plus C500 Cradle ThinkPad Ultrabay Plus C500 Cradle ThinkPad Ultrabay Plus Numeric Keypad 22P7330 08K6070 ThinkPad 72W AC Adapter 02K6699 ThinkPad 72W DC Auto Adapter 10K3820								Proactive e-mail updates ³¹ 24x7 ¹⁸ toll-free support for war related issues during the wa period ¹²			
Zip 250MB Ultrabay 24X-10X CD-ROM Ultralight 8X Max D CD-RW/DVD Comb Second HDD Adapt	y 2000 Drive 0 Ultrabay 2000 Drive 0 VVD Ultrabay 2000 2 to III Ultrabay 2000 2 ter for Ultrabay 2000 0	0N8253 Multiple 5K9233 20GB H 2P9102 40GB H 2P6980 60GB H 8K6068 IBM 128	Li-Ion/NiMH Batte ard Disk 9.5mm (4 S Hard Disk 9.5m S Hard Disk 12.5n BMB USB 2.0 Mem	ery Charger 200 rpm) m (5400 rpr nm (5400 rp nory Key	r 02 08 m) 08 om) 08 22	K6719 K9686 K9816 K9688 P8998	Se Se	rvicePac rvicePac	^{3, 22} 1yr IO 2yr IOR 9 3yr IOR 9	x5 NE x5 NE	30L918 3D 30L918 3D 30L919	
ThinkPad Removal ThinkPad Monitor S IBM 802.11a PC Ca	ble Diskette Drive 0 Stand 2001 2	8K9603 TrackPo 2P5265 IBM US 2P7501 IBM US	oint Cap Collection B 2.0 Portable CD B 2.0 PC Card ptions at ibm.co m	n -RW	73 22 33	P2698 P5297 L3245	Se	rvicePac	2yr P&L P 3yr P&L P	/U De	30L919 epot 30L919	

Type-model Proce	Speed essor GHz Memory Screen	Disk GB ⁸ Optical	Mini PCI Comm Bay wireless/modem	CDC	hernet on olanar		Pi Security Chip	reload Small busines software	or Glob	al (Ġ) Avail
2658-A6U Pentium 2658-A7U Pentium 2658-A8U Pentium 2658-CSU Pentium 2658-BV Pentium 2658-BPU Pentium 2658-BQU Pentium 2658-CGU Pentium 2658-CGU Pentium 2658-BMU Pentium	1° 4-M 1.6 128MB 14.1" XGA 14-M 1.6 256MB 14.1" XGA 14-M 1.6 256MB 14.1" XGA 14-M 1.8 256MB 14.1" XGA 14-M 1.8 256MB 14.1" XGA 14-M 1.8 256MB 14.1" XGA 14-M 1.6 256MB 14.1" XGA	20GB CD-RW 30GB Combo 30GB Combo 40GB CO-ROI 20GB DVD 20GB DVD 20GB DVD 30GB DVD 30GB DVD 30GB DVD 20GB DVD	Open 11b Wi-Fi ³² /mod Open Open	Modem Modem Modem Modem None Modem None Modem	10/100 10/100 10/100 10/100 10/100 10/100 10/100 10/100 10/100	1394	Yes X Yes X X Yes X X Yes X Yes X Yes X	P Pro P Pro P Pro Office P Pro Office P Pro P Pro P Pro P Pro 000	W G	Jun 2002 Jun 2002
Positioning Processor	Best blend of portability and Mobile Intel® Pentium® 4 P		s; two-spindle sys	tem				SOFT	VARE ¹⁴	
L2 cache Memory	enhanced Intel SpeedStep 512KB / on die (at processo 128 or 256MB std / 1GB ma two 200-pin SO-DIMM soc	[™] technology¹ an or speed) / ECC ax² / PC2100 266 cets / std memory	d 400MHz frontsion MHz DDR-SDRA v in one socket / o	.M / non-pa ne socket	aváilab		- Micro Profe	ows XP Pro nosoft® Windowessional ²⁰	vs® XP very	m)
Diskette drive CD-ROM CD-RW DVD Combo Ultrabay 2000 Disk	None standard / use option Some: CD-ROM / 24X-10. Some: CD-RW / 8X/4X/24 Some: DVD-ROM / 8X-3.3 Some: DVD-ROM/CD-RW One modular bay for interol 20GB*, 30GB, or 40GB / 42 supports 2nd disk with option	X° speed / bootab X Max° / bootable X° speed / boota I / 8X/8X/24X/8X nangeable device 00 rpm / upgrada nal HDD Adapter	ple / removable from e /removable from ble / removable fr removal ris (right side) / Ultr ble / S.M.A.R.T. / in Ultrabay 2000	m Ultrabay Ultrabay 2 om Ultraba ble from Ul rabay Plus	y 2000 2000 ay 2000 Itrabay	2000	Windo - Micro Profe - Cont ⇒ Disk (in hi	nidden Service bws 2000 moc cosoft Window essional ²⁰ figSafe [®] -to-Disk Recc idden Service JDED SOFTV	lels s 2000 overy Partition	n)
Display	14.1" (358.1mm) XGA (102 Easy-open cover to unlatch	and open with on	e hand				Preloa		ANE (all)
	ATI [®] Mobility™ RADEON™ External monitor support via				t 85Hz /	DDC2	B - Acc	cess Connect	ions	
Keyboard TrackPoint® ThinkLight™ Dimensions³	87-key / ThinkPad Button / TrackPoint® pointing device Illuminates the keyboard to 12.3" x 10.0" x 1.5"; 313mm	e, "Press-to-Selectimprove visibility x 254mm x 38mm	ct," Internet Scroll in low-light condi n	Bar ¹³ , mag tions / no l	gnifying UltraPoi	glass	AdolInterNortPC-I	cess Support be Acrobat Re rVideo WinDV on AntiVirus (Doctor™ IkPad Utilities	D (DVD	
Approximate weight ² Case material Battery - type Battery - life ¹⁰	with optical drive and batter Color: black; All: ABS plas Lithium Ion 8-cell / intellige Wireless models: 3.0 hrs; (tic nt /supports uniqi	0, 1	· ·			VeritIBM	tas RecordN(Update Conn loadable		
Port Replicator PC Card Std slots Ports	Intel 845MP chipset / 8284 82801CAM ICH3-M I/O Co Low Pin Count (LPC) interf PC11410A CardBus control LPC bus 33MHz (security of Optional ThinkPad Port Ro One Type II or one Type III Two USB (Version 1.1) / pa RJ-11 (modem) / RJ-45 (et	ntroller Hub (ATA ace, USB, Firmw ler, TSB43AB21 1 hip; PC87392 Su eplicator (no Thi / CardBus 32-bit trallel / external n	i-100 EIDE, PCI b are Hub) / PCI bus 394 (some), Mini I iper I/O for diskett nkPad Dock supp / PCMCIA 2.1 nonitor (DB-15) / ii	us, ethernes 2.2 32-bit PCI, externes, parallel ort)	:, 33MH al expa , infrare Mbps) /	z (TI® nsion), ed)	IBM IBM Clier with Licens Lotu	Rapid Restor Data Transfe Director Ager nt Security So security chip) se (CD not inc s° SmartSuits s Notes° Star	r it ftware (n luded) e® Milleni d-alone	nium and Client
Mini PCI	S-video out port (TV out) / 0 e)Some: IEEE 1394 (FireWir One Mini PCI type III slot (C Some: Mini PCI 11b Wi-Fi ^s side of display and i 56K ⁶ V.90 (V.92-de	e) port / 4-pin con Communications ² wireless ⁴ , Inters n base), Wi-Fi-ce	nector Bay) / customer u il [®] Prism 2.5 chips rtified /	et, dual an	4,36 Itennas	(in	only (2 - Micro Busi Publ ♦Office	2XP Small Bu 2658-A9U/BK cosoft Office X iness ²⁸ (Word lisher, Small B ce XP Small B	U) P Small Excel, (Business usiness	Outlook, Tools) CD
CDC Modem Ethernet Audio support	One Communications Daug Some: 56K ⁶ V.90 (V.92-des 10/100 ethernet on motherb Soft audio / ICH AC97 cont codec / stereo speakers / 1	phter Card (CDC) signed ²⁹) modem oard / Intel 82562 roller / SoundBlas watt / volume up	socket (open or m in CDC / Agere® cl ETchipset (physic ster Pro™-compat , down, mute butt	odem) / no nipset :al layer) :ible / AD18 ons / no in	881A A ternal r	C97	Asset acce PC 200 ACPI 1	rsal 72 watt A ID (system-s essed over ne 01-compliant 1.0b and 2.0-c nd DMI 2.0-cc	pecific in twork) complian	nfo in chip
Security	microphone input jack (3.5 Power-on password / hard Some: IBM Embedded Se factor authentication / local	disk [°] password / s curity Subsyste	súpervisor pasśwo m 2.0 33 / hardwai	ord / secur re key stora	ity keyh age/m	ulti-	PXE 2 IBM R	.0-compliant apid Restore ect software i	PC avai mage ar	lable to nd data
Limited warranty ¹²	1 year - EasyServ™,19 onsi					πιμιιαι	Persor	ational Warra nalized Web-	pased su	
256 MB PC2100 D	DR-SDRAM CL2.5 SOD 10 DR-SDRAM CL2.5 SOD 10 DR-SDRAM CL2.5 SOD 10	K0030 Portable K0032 2000	d Port Replicator Drive Bay 2000 (i media and storag d R32/R40 Li-Ion I	e devices)	trabay 19l	K8667 K4480 K7052	24 hou supp	tive e-mail up ur x 7 day ¹⁸ to port during the	I-free ha e warran	ity ¹²
IBM ThinkPad Ultr	abay Plus c500 Cradle 22	P5738 Ultrabay	2000 Li-Ion batte d 72W AC Adapte	ry	021	K6646 K6699		ePac ^{®, 22} 1yr		30L9188
Travel Bezel for U	trabay 2000 08	K6070 ThinkPa	d 72W AC Adapte d 72W DC Auto A Li-Ion/NiMH Batte	dapter	101	K3820 K6719		ePac 2yr IOF ePac 3yr IOF		30L9189
24X-10X CD-ROM	1 Ultrabay 2000 Drive 05	K9233 20GB Ha	ard Disk 9.5mm B Hard Disk 9.5mr	, ,	180	K9686 K9816		ePac 3yr IOF ePac 2yr P&l		30L9195
CD-RW/DVD Com Second HDD Adap	nbo III Ultrabay 2000 22 oter for Ultrabay 2000 08	P6980 60GB H3 K6068 TrackPo	S Hard Disk 9.5m S Hard Disk 12.5m int Cap Collection tions at ibm.com	ım (5400 rp	om) 08I 73I	K9688 P2698		ePac 3yr P&l		30L9191
0 () ()	portant warranty information					_	_	(D33) ⊚ IE		

Speed

Ethernet IEEE Preload Workhorse (W) on 1394 Security Limited or Global (G) Avail

Type-model Proce		Chip Warranty model date			
2659-CFU Pentiur 2659-CGU Pentiur 2659-BMU Pentiur	m® 4-M 1.6 256MB 14.1" XGA 20GB DVD Open Modem 10/100 No m 4-M 1.6 256MB 14.1" XGA 20GB DVD 11b Wi-Fi³²/mod None 10/100 No m 4-M 1.8 256MB 14.1" XGA 30GB DVD Open Modem 10/100 No m 4-M 1.6 256MB 14.1" XGA 20GB DVD Open Modem 10/100 No m 4-M 1.6 256MB 14.1" XGA 20GB DVD 11b Wi-Fi/mod None 10/100 No	Yes XP Pro 3 yr W G Jun 2002 XP Pro 3 yr W G Jun 2002 XP Pro 3 yr W G Jun 2002 Yes XP Pro 3 yr W G Jun 2002 2000 3 yr W G Jun 2002 Yes 2000 3 yr W G Jun 2002			
2659 m	odels have a 3 year limited warranty (other 2658 ThinkPad R32 systems have a 1 year li	mited warranty)			
Positioning Processor	Best blend of portability and essential features; two-spindle system Mobile Intel® Pentium® 4 Processor-M 1.6 or 1.8GHz with	SOFTWARE ¹⁴			
L2 cache Memory	enhanced Intel SpeedStep™ technology¹ and 400MHz frontside bus 512KB / on die (at processor speed) / ECC 128 or 256MB std / 1GB max² / PC2100 266MHz DDR-SDRAM / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available	Windows XP Pro models - Microsoft® Windows® XP Professional ²⁰ ⇒ Disk-to-Disk Recovery			
Diskette drive DVD Ultrabay 2000 Disk	None standard / use optional Ultrabay™-based or USB-based diskette drive DVD-ROM / 8X-3.3X ⁹ speed / bootable / removable from Ultrabay 2000 One modular bay for interchangeable devices (right side) / Ultrabay Plus -compatible 20GB ⁹ or 30GB / 4200 rpm / upgradable / S.M.A.R.T. / supports 2nd disk with optional HDD Adapter in Ultrabay 2000	(in hidden Service Partition) Windows 2000 models - Microsoft Windows 2000 Professional ²⁰ - ConfigSafe®			
Display	14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits / Easy-open cover to unlatch and open with one hand	♦ Disk-to-Disk Recovery (in hidden Service Partition)			
Graphics controller Graphics - external	ATI® Mobility™ RADEON™ 7000 / AGP 4X / 16MB DDR-SDRAM External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC28	INCLUDED SOFTWARE ¹⁴ (all)			
Keyboard TrackPoint® ThinkLight™ Dimensions³	87-key / ThinkPad Button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys) 12.3" x 10.0" x 1.5"; 313mm x 254mm x 38mm 12.3" x 10.0" x 1.5"; 313mm x 254mm x 38mm 12.3" x 10.0" x 1.5"; 313mm x 254mm x 38mm 12.3" x 10.0" x 1.5"; 313mm x 254mm x 38mm 12.3" x 10.0" x 1.5"; 313mm x 254mm x 38mm 12.3" x 10.0" x 1.5"; 313mm x 254mm x 38mm 12.3" x 10.0" x 1.5"; 313mm x 254mm x 38mm 12.3" x 10.0" x 1.5"; 313mm x 254mm x 38mm 12.3" x 10.0" x 1.5"; 313mm x 254mm x 38mm 12.3" x 10.0" x 1.5"; 313mm x 254mm x 38mm 12.3" x 10.0" x 1.5"; 313mm x 254mm x 38mm 12.3" x 10.0" x 1.5"; 313mm x 254mm x 38mm 12.3" x 10.0" x 1.5"; 313mm x 254mm x 38mm 12.3" x 10.0" x 1.5"; 313mm x 254mm x 38mm 13.3" x 10.0" x 1.5"; 313mm x 254mm x 38mm 14.3" x 10.0" x 1.5"; 313mm x 254mm x 38mm 15.3" x 10.0" x 1.5"; 313mm x 254mm x 38mm 16.3" x 10.0" x 1.5"; 313mm x 254mm x 38mm 17.3" x 10.0" x 1.5"; 313mm x 254mm x 38mm 18.3" x 10.0" x 1.5"; 313mm x 254mm x 38mm 19.3" x 10.0" x 1.5"; 313mm x 254mm x 38mm 19.3" x 10.0" x 1.5"; 313mm x 254mm x 38mm 10.3" x 10.0" x 1.5"; 31.0" x	Preloaded • Access ThinkPad - Access Connections - Access Help - Access Support • Adobe Acrobat Reader • InterVideo WinDVD (DVD models) • Norton AntiVirus (OEM edition) • PC-Doctor™			
Architecture Port Replicator PC Card Std slots Ports	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 (TI® PCI1410A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip (some); PC87392 Super I/O for diskette, parallel, infrared) Optional ThinkPad Port Replicator (no ThinkPad Dock support) One Type II or one Type III / CardBus 32-bit / PCMCIA 2.1 Two USB (Version 1.1) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port	ThinkPad Utilities Veritas RecordNOW (CD-RW mod) IBM Update Connector™.15 Downloadable IBM Rapid Restore™ PC IBM Data Transfer IBM Director Agent Client Security Software (models with security chip)			
Video out IEEE 1394 Mini PCI 11b Wi-Fi ³² /mod	S-video out port (TV out) / one industry standard connector None One Mini PCI type III slot (Communications Bay) / customer upgradable ^{4,36} Some: Mini PCI 11b Wi-Fi ³² wireless ⁴ , Intersil ⁸⁰ Prism 2.5 chipset, dual antennas (in side	License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
CDC Modem Ethernet Audio support Security	of display and in base), Wi-Fi-certified / 56k° V.90 (V.92-designed²³) modem combo, Agere® chipset One Communications Daughter Card (CDC) socket (open or modem) / not accessible Some: 56k° V.90 (V.92-designed²³) modem in CDC / Agere® chipset 10/100 ethernet on motherboard / Intel 82562ETchipset (physical layer) Soft audio / ICH AC97 controller / SoundBlaster Pro™-compatible / AD1881A AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / no internal mic / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack Power-on password / hard disk password / supervisor password / security keyhole Some: IBM Embedded Security Subsystem 2.0³³ / hardware key storage / multifactor authentication / local file encryption / enhances VPN security¹6 / TCPA-compliant	Universal 72 watt AC adapter Asset ID (system-specific info in chip accessed over network) PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.0-compliant IBM ImageUltra™ Services available IBM Rapid Restore PC available to protect software image and data International Warranty Service ¹⁷			
Limited warranty ¹² Service options	3 years/1 year battery - EasyServ ^{™.19} onsite pickup and delivery Service upgrades ²² provide up to five years of onsite or depot repair service coverage from date of ThinkPad purchase (including warranty period)	Personalized Web-based support ³¹ Proactive e-mail updates ³¹ 24 hour x 7 day ¹⁸ toll-free hardware support during the warranty ¹²			
256 MB PC2100 D 512 MB PC2100 D IBM ThinkPad Ultr IBM ThinkPad Ultr ThinkPad Ultrabay Travel Bezel for Ul Zip 250MB Ultraba 24X-10X CD-ROW Ultralight 8X Max I CD-RW/DVD Com	Abay Plus c500 Cradle 22P5738 Ultrabay 2000 Li-Ion battery 02K6646 Plus Numeric Keypad 22P7330 ThinkPad 72W AC Adapter 02K6699 10K3820 2000 Drive 00N8253 Multiple Li-Ion/NiMH Battery Charger 02K6719 10Ultrabay 2000 05K9233 22P9102 40GB HS Hard Disk 9.5mm (4200 rpm) 08K9686 05W DU Ultrabay 2000 22P6980 05W6068 IBM 128MB USB 2.0 Memory Key 22P8998 02K67646 02K6699 02K6719 02K6699 02K6719 02K6719 02K6719 02K6719 02K6719 02K6699 02K6719 02K6699 02K6719 02K6699 02K6719 02K6699 02K6719 02K6699 02K6669 02K6719 02K6699 02K6719 02K6699 02K6719 02K6699 02K6719 02K6699 02K6719	ServicePac®.22 2yr IOR 9x5 NBD 30L9190 ServicePac 3yr IOR 9x5 NBD 30L9197			
	nortant warranty information	(DOO) @ IBM Corp. March 2002			

Mini PCI Comm Bay

CDC

Disk

Mini PCI Ethernet IEEE Preload Workhorse (W)											
Type-model Proce	Speed ssor GHz Memory Screen	Disk Comm Bay GB ⁸ Optical wireless/modem		394 Security ort Chip	Limited or Global (Ġ) Avail Warranty model date						
2659-EFU Pentiur 2659-EGU Pentiur 2659-DMU Pentiur 2659-DNU Pentiur • 2659 I	m4-M 1.6 256MB 14.1" XGA m4-M 1.8 256MB 14.1" XGA m4-M 1.8 256MB 14.1" XGA m4-M 1.6 256MB 14.1" XGA m4-M 1.6 256MB 14.1" XGA models have a 3 year limited war	20GB DVD 11bWi-Fi ³² /mod 30GB DVD Open 30GB DVD 11bWi-Fi/mod 20GB DVD Open 20GB DVD 11bWi-Fi/mod rranty (other 2658 ThinkPad R3	d None 10/100 Modem 10/100 None 10/100 Modem 10/100 None 10/100	No	Pro 3 yr W Jun 2002 Pro 3 yr W Jun 2002 Pro 3 yr W Jun 2002 O 3 yr W Jun 2002 O 3 yr W Jun 2002						
Positioning	Act Agreement (TAA)-compliant Best blend of portability and ess		tem		SOFTWARE ¹⁴						
TAA-compliant Processor	Trade Act Agreement-complia Mobile Intel® Pentium® 4 Proc	ant		Windows	XP Pro models						
L2 cache Memory	enhanced Intel SpeedStep™ ter 512KB / on die (at processor sp 128 or 256MB std / 1GB max² / two 200-pin SO-DIMM sockets	peed) / ĔCC / PC2100 266MHz DDR-SDRA	M / non-parity / CL2	Professi ⇒ Disk-to-	ft® Windows® XP lonal ²⁰ Disk Recovery en Service Partition)						
Diskette drive DVD Ultrabay 2000 Disk	None standard / use optional UDVD-ROM / 8X-3.3X ⁹ speed / b One modular bay for interchang 20GB ⁸ or 30GB / 4200 rpm / upg supports 2nd disk with optional	pootable / removable from Ultra geable devices (right side) / Ultr gradable / S.M.A.R.T. /	bay 2000	le - Microso Professi - ConfigS							
Display	14.1" (358.1mm) XGA (1024x7 Easy-open cover to unlatch and		,	en Service Partition)							
Graphics controller	ATI® Mobility™ RADEON™ 70 External monitor support via and	Dualanda	D SOFTWARE ¹⁴ (all)								
Keyboard TrackPoint® ThinkLight™	87-key / ThinkPad Button / palr TrackPoint® pointing device, "P Illuminates the keyboard to imp	Access - Access - Access	s Connections								
Dimensions ³ Approximate weight ² Case material Battery - type Battery - life ¹⁰	12.3" x 10.0" x 1.5"; 313mm x 2: with optical drive and battery: 5 Color: black; All: ABS plastic Lithium Ion 8-cell / intelligent / s Wireless models: 3.0 hrs; Othe	InterVidNorton APC-DocThinkPa	ad Utilities								
Port Replicator PC Card Std slots Ports	Intel 845MP chipset / 82845MF 82801CAM ICH3-M I/O Control Low Pin Count (LPC) interface, PCI1410A CardBus controller, chip (some); PC87392 Super I/ Optional ThinkPad Port Replic One Type II or one Type III / Ca Two USB (Version 1.1) / paralle RJ-11 (modem) / RJ-45 (etherr	ller Hub (ATA-100 EIDE, PCI b , USB, Firmware Hub) / PCI bu Mini PCI, external expansion) / L O for diskette, parallel, infrarec cator (no ThinkPad Dock supp ardBus 32-bit / PCMCIA 2.1 el / external monitor (DB-15) / i net) / no keyboard or mouse or	us, ethernet MAC, s 2.2 32-bit, 33MHz (sec IPC bus 33MHz (sec I) ort) nfrared (4Mbps) /	• IBM Upo Download • IBM Ray • IBM Dat • IBM Dir • Client S with sec	oid Restore™ PC a Transfer ector Agent ecurity Software (models urity chip) CD not included)						
Video out IEEE 1394	S-video out port (TV out) / one i None	•			SmartSuite® Millennium and otes® Stand-alone Client						
Mini PCI 11b Wi-Fi ³² /mod	One Mini PCI type III slot (Com Some: Mini PCI 11b Wi-Fi ³² wir of display and in base), 56K ⁶ V.90 (V.92-design	reless⁴, Intersil® Prism 2.5 chips	set, dual antennas (ir	Asset ID (72 watt AC adapter system-specific info in chip ed over network)						
CDC Modem	One Communications Daughter Some: 56K ⁶ V.90 (V.92-designe	r Card (CDC) socket (open or m	odem) / not accessil	ACFI I.UL	and 2.0-compliant						
Ethernet Audio support	10/100 ethernet on motherboard Soft audio / ICH AC97 controlle	er / SoundBlaster Pro™-compat	ible / AD1881A AC9	7 PXE 2.0-c							
Security	codec / stereo speakers / 1 wat microphone input jack (3.5 mm Power-on password / hard disk Some: IBM Embedded Securi factor authentication / local file) / headphone jack (3.5 mm) / r r password / supervisor passw ity Subsystem 2.0 ³³ / hardwal encryption / enhances VPN se	no line in jack ord / security keyhol re key storage / mult curity ¹⁶ / TCPA-com	e IBM Rapid protect Internatio Personali	eUltra™ Services available d d Restore PC available to software image and data nal Warranty Service ¹⁷ zed Web-based support ³¹ e-mail updates ³¹						
Limited warranty ¹²	3 years /1year battery - EasySe service upgrades ²² available	erv™.19 onsite pickup and delive	ery /	24x7 ¹⁸ toll related	-free support for warranty- issues during the warranty						
256 MB PC2100 D 512 MB PC2100 D IBM ThinkPad Ultr IBM ThinkPad Ultr ThinkPad Ultrabay Travel Bezel for U Zip 250MB Ultraba 24X-10X CD-ROM Ultralight 8X Max I CD-RW/DVD Com	abaý Plus c500 Cradle v Plus Numeric Keypad trabay 2000 y 2000 Drive 0 Ultrabay 2000 Drive DVD Ultrabay 2000 blo III Ultrabay 2000 ble Diskette Drive Stand 2001 22P57 22P73 08K60 00N82 05K92 02P91 02P69 08K60 08K96 08K96	052	ac ^{®, 22} 2yr IOR 9x5 NBD 30L9190 ac 3yr IOR 9x5 NBD 30L9197								
		Other options at ibm.com	poruoraccessories	(500)							

	Speed Disk Comm Bay CDC o model Processor GHz Memory Screen GB® Optical wireless/modem modem pla											ty	Limited of	orkhorse (W) or Global (G) Avail			
2658-BZU Per	entium	® 4-M 1.	6 256MB	14.1" X	GA 20	GB		Open (wireless upg Cisco 802.11b	³⁶) Moden	planar n 10/100 n 10/100			1 year	W G Jul 2002 W Jul 2002			
Positioning Processor L2 cache Memory		Best ble Mobile enhanc 512KB 256MB	end of port Intel® Per ed Intel S / on die (a std / 1GB	tability and tium® 4 peedStep the process max7 / F	d esser Proces o™ tech sor spec	ntial ssor inolo ed) /	feature -M 1.6 ogy¹ an 'ECC 6MHz [es; two-spindle system or 1.8GHz with ad 400MHz frontside DDR-SDRAM / non-p y in one socket / one	m bus parity / CL2	.5 /	v	indows 2 Microsoft Professio	SOFTW XP Pro mo	'ARE ¹⁴ odels s® XP			
Diskette drive DVD Ultrabay 2000 Disk Display		None st Some: One mo 20GB ⁸ (support 14.1 " (3 easy-op	tandard / t DVD-RO odular bay or 30GB / s 2nd disk 358.1mm) oen cover	use optio M / 8X-3 for inter 4200 rpm with opti XGA (10 to unlate	nal Ultr .3X ⁹ sp change n / upgr onal HI 24x76 8 n and o	aba eed able adal DD / B) Ti oen	y™-bas / boota e device ole / S.I Adapter F T colc with on	sed or USB-based di able / removable fron es (right side) / Ultrak M.A.R.T. / r in Ultrabay 2000 or / Active Matrix / 15 te hand (two latches)	skette drive n Ultrabay 2 pay Plus-co 0 nits /	e 2000	IN P	(in hidder ICLUDEI reloaded Access T	n Service F D SOFTWA ThinkPad Connection Help	Partition) ARE ¹⁴ (all)			
	ernal	Externa 87-key TrackPo Illumina	<u>Il monitor :</u> / ThinkPa oint® point	support v d Button ting device eyboard t	ia analo / palm ce, "Pre o impro	og D rest ss-t ove v	B-15 c / pitch: o-Sele visibility	7/16MB DDR-SDRA onnector/up to 1600 : 19mm; stroke: 2.7n ct," Internet Scroll Ba y in low-light condition	x1200 at 85 nm (std-size ar ¹³ , magnif	e keys) ying glas:	28	Adobe	crobat Rea o WinDVE ntiVirus (C or™	O (DVD models) DEM edition)			
Approximate we Case material Battery - type Battery - life ¹⁰	eight ²	with opt <i>Color:</i> E Lithium <i>Wireles</i>	ical drive Black; All. Ion 8-cell ss CHU m	and batte : ABS pla / intellige odel: 3.0		D •	ownload IBM Rapi IBM Data IBM Dire	able id Restore a Transfer ctor Agent	™ PC								
Port Replicator PC Card Std sl Ports	Wireless CHU model: 3.0 hrs; BŽÜ: 3.1 hrs 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 (T PCI1410A CardBus controller, TSB43AB21 1394 (some), Mini PCI, external expansio LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared) Optional ThinkPad Port Replicator (no ThinkPad Dock support) One Type II or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door											with secu cense (C Lotus® Sı	ırity ćhip) D not inclı martSuite®	`			
Video out IEEE 1394 Mini PCI 802.11b Wireless up- gradable CDC Modem Ethernet)-	S-video None One Mil CHU: BZU: One Co All:	o out port (ni PCI typ Mini PCI 8 chipset, d Dual ante IBM intend mmunical 56K ⁶ V.90	(TV out) / e III slot (802.11b v ual anten nnas (in s ds to ann tions Dau (V.92-de	Comm vireless nas (in side of counce I ghter Cesigned	dust unic ⁴ , Ci side displ dini Card ²⁹) n	eations isco® A e of disp lay and PCI Wi (CDC)	dard connector Bay) / customer upg ironet® Wireless 802 blay and in base), Wi- l in base) for wireless i-Fi wireless commun socket (open or moc in CDC / Agere® chip EETchipset (physical	radable 2.11b, Prism Fi-certified connectivit ication opti lem) / not ac	ry / ons	in di U po U C	Ultrabay Plus integrated modula supports most Ultrabay 2000 dev including CD-RW/DVD Combo di diskette drive, or Zip drive; the op Ultrabay Plus Device Carrier add potential functionality by supportir Ultrabay Plus Numeric Keypad at Cradle for the WorkPad® c500 Se					
Audio support Security		Soft aud codec / microph <i>All:</i> Pov <i>CHU:</i>	dio / ICH A stereo sp none input wer-on pa IBM Emb multi-facto TCPA-cor	AC97 cor leakers / t jack (3.9 ssword / edded S or auther mpliant	troller / 1 watt / 5 mm) / hard d ecurity tication	Soi voli hea isk p Su	undBla ume up adphon basswo bsyste ocal file	ster Pro™-compatible, down, mute button be jack (3.5 mm) / no rord / supervisor pass em 2.0 ³⁹ / hardware kencryption / enhance	e / AĎ1881 is / no interi line in jack word / secu key storage	nal mic / ırity keyh /	ole A	sset ID (s accesse C 2001-cc CPI 1.0b IM and DI XE 2.0-cc	d over net ompliant and 2.0-co MI 2.0-cor ompliant	ecific info in chip work) ompliant			
Limited warran Service options	าร	Service	- EasySei upgrades te of Think	s ²² provid	e up to	five	years c	livery of onsite or depot rep arranty period)	air service d	coverage	In 24	protect s ternation 1 hour x 7 support o	oftware in al Warran ' day¹ ⁸ toll- during the	PC available to nage and data ty Service ¹⁷ -free hardware warranty ¹² DR 9x5 NBD			
256 MB PC21 512 MB PC21 IBM ThinkPad IBM ThinkPad Ultr Travel Bezel f Zip 250MB Ul 24X-10X CD- Ultralight 8X N CD-RW/DVD Second HDD ThinkPad Rer IBM High Rat Cisco Aironet	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 10K0030 512 MB PC2100 DDR-SDRAM CL2.5 SOD 10K0032 7512 MB PC2100 DDR-SDRAM CL2												2 2yr IOR 9 3yr IOR 9 4yr IOR 9 5yr IOR 9 2 2yr P&L 3yr P&L	30L9188 9x5 NBD 30L9189 9x5 NBD 30L9195 9x5 NBD 69P9194			

		Ethernet			Workhorse					
Type-model Proce	Speed essor GHz Memory	Screen	Disk GB ⁸ Opti	Comm Bay cal wireless/modem	CDC modem		Security Chip Preload		or Global model	
2659-BZU Pentium 2659-CHU Pentium	n® 4-M 1.6 256MB n 4-M 1.8 256MB	14.1" XGA 2 14.1" XGA	20GB DV 30GB DV	D Open (wireless upg ³⁶ Cisco 802.11b	Modern Modern	n 10/100 n 10/100	Yes XP Pro	3 years 3 years	WG .	Jul 2002 Jul 2002
2659 m	odels have a 3 year	limited warr	anty (othe	r 2658 ThinkPad R32 syst	ems have	a 1 year l	limited warrant	ty)		
Positioning Processor L2 cache Memory	Mobile Intel® Pen enhanced Intel Sp 512KB / on die (at 256MB std / 1GB	tium® 4 Proc eedStep™ te processor sp max ⁷ / PC21	essor-M 1 chnology¹ beed) / EC 00 266MH	lz DDR-SDRAM / non-pai	ity / CL2.		Windows 2 - Microsoft Profession	t® Window onal ²⁰	odels /s® XP	
Diskette drive DVD Ultrabay 2000 Disk	None standard / u Some: DVD-ROI One modular bay 20GB ⁸ or 30GB / 4	se optional U M / 8X-3.3X ⁹ for interchan 200 rpm / up	ltrabay™-l speed / bo geable dev gradable /	nory in one socket / one sobased or USB-based disk otable / removable from Uvices (right side) / Ultraba ry S.M.A.R.T. / oter in Ultrabay 2000	ette drive Jltrabay 2	1000	Disk-to-E (in hiddel INCLUDEI Preloaded Access T	n Service D SOFTW	Partition)	I)
Display	14.1" (358.1mm) 2 easy-open cover t	- Access - Access	Connection Help	ons						
Graphics controller Graphics - external	ATI® Mobility™ R External monitor s	- Access • Adobe Adobe Adobe InterVide	crobat Re		odels)					
Keyboard TrackPoint® ThinkLight™	87-key / ThinkPac TrackPoint®pointi Illuminates the ke	Norton APC-DoctThinkPa	ntiVirus (0 or™ d Utilities	DÈM editio						
Dimensions ³ Approximate weight ⁴ Case material Battery - type Battery - life ¹⁰	12.3" x 10.0" x 1.5 with optical drive a Color: Black; All: Lithium Ion 8-cell Wireless CHU mo	and battery: { ABS plastic / intelligent /	5.9 lbs (2.7 supports u	7 kg) nique 2nd battery in Ultrab	ay 2000		IBM Upda Download IBM Rap IBM Data IBM Dire	able id Restore a Transfer	e™ PC	
Architecture Port Replicator PC Card Std slots Ports	82801CAM ICH3- Low Pin Count (LI PCI1410A CardB LPC bus 33MHz (Optional ThinkPa One Type II or on Two USB (Version	M I/O Contro PC) interface us controller, security chip d Port Repli e Type III / Ca n 1.1) / parall	ller Hub (<i>f</i> , USB, Firi TSB43AB2; PC87392 cator (no ardBus 32 el / externa	Controller Hub (MCH-M) ATA-100 EIDE, PCI bus, e mware Hub) / PCI bus 2.2 21 1394 (some), Mini PCI, e 2 Super I/O for diskette, pa ThinkPad Dock support) -bit / PCMCIA 2.1 / integral al monitor (DB-15) / infrare	ethernet M 32-bit, 33 external e arallel, inf ated door ed (4Mbp	MHz (TI® xpansion) rared)	/ - Lotus® Si	uded)	um and	
Video out IEEE 1394 Mini PCI 802.11b	None One Mini PCI type CHU: Mini PCI 8	e III slot (Com 02.11b wirele	municatio	tandard connector ns Bay) / customer upgra Aironet Wireless 802.1	1b, Prism	12.0	Ultrabay P			
Wireless up- gradable CDC Modem Ethernet Audio support	chipset, du BZU: Dual anter IBM intend One Communicati All: 56K ⁶ V.90 10/100 ethernet or	al antennas (nas (in side d s to announc ons Daughte (V.92-design n motherboar	in side of control of display a control of display a control of display and a control of display	display and in base), Wi-Fi and in base) for wireless on Wi-Fi wireless communic CC) socket (open or moder em in CDC / Agere® chipse 562ETchipset (physical la Blaster Pro™-compatible	-certified onnectivity ation option) / not ac et yer)	y/ ons ccessible	including C diskette dri Ultrabay PI potential fu Ultrabay PI	oports most Ultrabay 2000 devices luding CD-RW/DVD Combo drive, kette drive, or Zip drive; the option rabay Plus Device Carrier adds rential functionality by supporting the rabay Plus Numeric Keypad and adle for the WorkPad® c500 Series		
Security	microphone input All: Power-on pas CHU: IBM Embe	jack (3.5 mm ssword / hard edded Secur r authenticat	i) / headph I disk pass ity Subsy	e up, down, mute buttons none jack (3.5 mm) / no lir word / supervisor passwostem 2.0 ³³ / hardware keyfile encryption / enhances	e in jack ord / secu / storage :	rity keyho	Universal 7 Asset ID (s accesse PC 2001-c ACPI 1.0b CIM and D			
Limited warranty ¹² Service options		²² provide up	to five year	nsite pickup and delivery rs of onsite or depot repair g warranty period)	service c	overage	PXE 2.0-co IBM Image IBM Rapid	ompliant Ultra™ Se Restore I	rvices av C availal	ble to
256 MB PC2100 E 512 MB PC2100 E IBM ThinkPad Ult IBM ThinkPad Ultraba Travel Bezel for U Zip 250MB Ultrab 24X-10X CD-RON Ultralight 8X Max CD-RW/DVD Con Second HDD Ada ThinkPad Remova IBM High Rate Wi Cisco Aironet Wir		02K8667 bay 19K4480 02K7052 02K6646 02K6699 10K3820 02K6719 08K9816 31P7410 22P8998 73P2698 22P5297 07N5574 sories	Internation 24 hour x 7 support of ServicePace Service	7 day ¹⁸ toll during the c ^{®,22} 2yr l ^Q c 3yr IOR c 4yr IOR c 5yr IOR c 4yr P&L	or Service of Free hard warranty DR 9x5 NBD 9x5 NBD 6 9x5 NBD 6 P/U Depo	BD :0L9190 :0L9197 :9P9198 :9P9200 ot :9P9199				

	Chand	Diek	Mini PCI	Ethernet CDC on		Preload	Small Workhorse (W)
Type-model Proces		Disk GB ⁸ Optical		modem planar	1394 Se port	Chip s	usiness or Global (G) Avai oftware model date
2658-N3U Pentium 2658-N5U Pentium 2658-K7U Pentium 2658-KAU Pentium 2658-KAU Pentium 2658-KHU Pentium 2658-KJU Pentium 2658-LSU Pentium 2658-NWU Pentium 2658-K4U Pentium 2658-K4U Pentium 2658-K8U Pentium 2658-K8U Pentium 2658-KCU Pentium 2658-K	** 1.5 128MB 14.1" XGA** 44-M 1.8 256MB 14.1" XGA** 44-M 2.0 256MB 14.1" XGA** 44-M 2.0 256MB 14.1" XGA** 44-M 1.7 128MB 14.1" XGA**	20G DVD 30G DVD 30G DVD 30G DVD 20G DVD 20G CD 30G Combo 40G Combo 40G Combo 40G Combo 40G Combo 40G Combo 40G COmbo 40G CD	11b Wi-Fi/modem Open Open		1394 1394 1394 1394 1394	XP Pro XP Pro 'es XP Pro XP Hom XP Pro	Office XP SB ¹⁸ Sep 2002 Office XP SB Sep 2002
Positioning Processor	Best blend of portability and Mobile Intel® Celeron 1.5G			m			SOFTWARE ¹⁴
L2 cache Memory Diskette drive CD DVD Combo Ultrabay 2000 Disk	Mobile Intel Pentium 4 Pro enhanced Intel SpeedStep! Celeron: 256KB; Pentium 4 128 or 256MB std / 1GB matwo 200-pin SO-DIMM sock None standard / use option: Some: CD-ROM / 24X-10); Some: DVD-ROM / 8X-3.3 Some: DVD-ROM/CD-RW One modular bay for interct 20GB ⁸ , 30GB, or 40GB / 42 supports 2nd disk with optio	M technology 1 First 12 Meg. 4 Meg. 512 KB; A Meg. 7 PC2100 2 Mets / std mem. Al Ultrabay Meg. 6 speed / book / 8X/8X/24X/8 Meg. 6 Meg.	and 400MHz frontside All: on die (at processor 166MHz DDR-SDRAM ory in one socket / one 164 or USB-based die 165 or use of 164 or use of 165 o	speed) / ECC / non-parity / CL: socket available skette drive Ultrabay 2000 n Ultrabay 2000 e from Ultrabay 21)	- Microsoft Professio Disk-to-D (in hidde Windows X - Microsoft Disk-to-D (in hidder INCLUDED	(P Pro models Windows® XP nal²0 lisk Recovery n Service Partition) (P Home models Windows XP Home²0 lisk Recovery n Service Partition) D SOFTWARE¹⁴ (all)
Display	14.1" (358.1mm) XGA (102 easy-open cover to unlatch	4x768) TFT co	olor / Active Matrix / 150	O nits /		 Preloaded Access T Access 	hinkPad Connections
Graphics controller Graphics - external	ATI® Mobility™ RADEON™ External monitor support via	7000 / AGP	4X / 16MB DDR-SDRA		DC2B	- Access	Help Support
Keyboard TrackPoint® ThinkLight™	87-key / ThinkPad Button / TrackPoint® pointing device Illuminates the keyboard to	palm rest / pito , "Press-to-Se	ch: 19mm; stroke: 2.7m lect," Internet Scroll Ba	nm (std-size keys ar ¹³ , magnifying g	s) Ilass	 InterVide 	crobat Reader o WinDVD (DVD models) ntiVirus (OEM edition) or™
Dimensions ³ Approximate weight ² Case material Battery - type Battery - life ¹⁰	12.3" x 10.0" x 1.5"; 313mm with optical drive and batter Color: Black; All: ABS plas Lithium Ion 8-cell / intelliger Celeron model: 3.1 hrs; wir	/: 5.9 to 6.2 lb tic nt / supports un	s (2.6 to 2.7 kg) depen nique 2nd battery in Ultra	abay 2000	6	Veritas (c	d Utilities ordNOW and DLA by combo models) ate Connector™,15 d Restore™ PC
Architecture Port Replicator PC Card Std slots Ports	Intel 845MP chipset / 8284 82801CAM ICH3-M I/O Col Low Pin Count (LPC) interfa PCI1410A CardBus control LPC bus 33MHz (security of Optional ThinkPad Port Re One Type II or one Type III Two USB (Version 1.1) / pa RJ-11 (modem) / RJ-45 (eti	ntroller Hub (A ace, USB, Firn er, TSB43AB2 hip; PC87392 eplicator (no T / CardBus 32- rallel / externa	TA-100 EIDE, PCI bus nware Hub) / PCI bus 2 1 1394 (some), Mini PCI bus 2 Super I/O for diskette, hinkPad Dock support bit / PCMCIA 2.1 / inter I monitor (DB-15) / infr	, ethernet MAC, .2 32-bit, 33MHz I, external expans parallel, infrared) grated door ared (4Mbps) /	sion)/	 System M Client Sewith secular License (C Lotus® Sr 	ctor Agent Delivery Assistant digration Assistant curity Software (models
Video out IEEE 1394 (FireWire Mini PCI 11b Wi-Fi ³² /mod 802.11b	N5U: Mini PCI 802.11b wi	e) port / 4-pin o communication ² wireless ⁴ , Inte e), Wi-Fi-certif signed ²⁹) mode reless ⁴ , Cisco®	connector is Bay) / customer upg ersil® Prism 2.5 chipset ied / em combo, Agere® chip Aironet® Wireless 802	, dual antennas (i set 2.11b with custom		Office XP S only (2658- - Microsoft Business Publisher	Small Business model -K8U/KCU/LHU) Office XP Small
Wireless upg ³⁶	Some: Dual antennas (in di	splày and in ba	isplay and in base), Wiase) for wireless conne	ctivity Mini PCI or	otions		10 11 40 1
CDC Modem Ethernet Audio support	One Communications Daug Some: 56K ⁶ V.90 (V.92-des 10/100 ethernet on motherb Soft audio / ICH AC97 contr codec / stereo speakers / 1	signed ²⁹) mode oard / Intel 825 oller / SoundB watt / volume	·m in CDC / Ågere® chip 62ETchipset (physical Blaster Pro™-compatibl up, down, mute button	oset layer) e / AD1881A AC s / no internal mi	97	Asset ID (s accessed PC 2001 ar ACPI 1.0b 8	'2 watt AC adapter ystem-specific info in chip d over network) nd PXE 2.0-compliant and 2.0-compliant
Security Limited warranty ¹²	microphone input jack (3.5 Power-on password / hard <i>Some:</i> IBM Embedded Se factor authentication / local 1 year - EasyServ ^{TM,19} onsit	disk password curity Subsys file encryption	/ súpervisor password stem 2.0³³ / hardware k / enhances VPN secu	I / security keyho key storage / mul rity ¹⁶ / TCG-comp	ti-	IBM Rapid protect so Internation	MI 2.0-compliant Restore PC available to oftware image and data al Warranty Service ¹⁷ day ¹⁸ toll-free hardware
_	DR-SDRAM CL2.5 SOD 10	- 1	Pad Port Replicator		8667	support o	during the warranty ¹²
256 MB PC2100 DI 512 MB PC2100 DI Ultralight 8X Max I CD-RW/DVD Com Second HDD Adap ThinkPad Remova	DR-SDRAM CL2.5 SOD 10l DR-SDRAM CL2.5 SOD 10l OVD Ultrabay 2000 22l bot IV Ultrabay 2000 08l oter for Ultrabay 2000 08l	(0030 Portal (0032 200 P9102 Thinkl P6991 Ultrab (6068 Thinkl (9603 40GB	ble Drive Bay 2000 (ac 00 media and storage of Pad R32/R40 Li-Ion Ba eay 2000 Li-Ion battery Pad 72W AC Adapter HS Hard Disk 9.5mm (1a/b/g Wireless CardBu	cepts Ultrabay devices) 19K4 ttery 02K 02K0 02K0 5400 rpm) 08K9	4480 7052 6646 6699 9816	ServicePac Other Servi	c ^{®,22} 1yr IOR 9x5 NBD 30L9188 c 3yr P&L P/U Depot 30L9192 icePac options at ervices/its/us/source/ i.pdf
San footpoton for imp	ortant warranty information					/D226	S) © IBM Corp. October 200

Other options at ibm.com/pc/us/accessories

31P9101

IBM 11a/b/g Wireless CardBus Adapter

69P9201

Type-model	Processor	Speed GHz	Memory	Screen	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem	Ethernet on S planar	Securit chip	ty (Vorkhorse (or Global (0 or Entry (E	G) Avail
2684-H6U 2684-H8U 2684-H4U	Celeron® Celeron Celeron	2.0 2.0 2.0	128MB 128MB 128MB	14.1" XGA 14.1" XGA 14.1" XGA	20GB 20GB 30GB	CD CD Combo	None None None	Modem Modem Modem	10/100 10/100 10/100	No	Windows XP Pro Windows XP Home Windows XP Home		Oct 2003 Oct 2003 Oct 2003

Positioning Processor L2 cache Memory		DMHz system bus	SOFTWARE ¹⁴ Windows XP Home models - Microsoft® Windows® XP Home Edition ²⁰					
Diskette drive CD Combo Ultrabay™ 2000 Disk	None standard / use optional USB-bas Some: CD-ROM/24X-10X ⁹ speed / fi Some: Combo / 24X/10X/24X/8X ²¹ sp None 20 or 30GB ⁸ , 4200 rpm, 9.5mm, S.M.A. 9.5mm high bay	ed diskette drive ixed, not removable eed / fixed, not removable	 Disk-to-Disk Recovery (in hidden protected area) Windows XP Pro models Microsoft Windows XP Professional²⁰ Disk-to-Disk Recovery 					
Display	14.1" (358.1mm) XGA (1024x768) TF1 easy-open cover to unlatch and open w	rith one hand (two latches)	(in hidden protected area) Preloaded (all)					
Graphics - external	ATI® RADEON™ IGP 330M / integrate External monitor support via analog DB	d in northbridge / 16MB DDR-SDRAM 3-15 connector / up to 1600x1200 at 85Hz / DD0	Access IBM Access Connections Adobe Acrobat Reader					
Keyboard TrackPoint® Touch pad ThinkLight™	TrackPoint pointing device, "Press-to-S	10.0 x 1.53" / 313mm x 254mm x 38.9mm						
Dimensions ³ Approximate weight ² Case material		<i>J:</i> 5.9 lb (2.67kg); 6.0 lb (2.72kg)	Norton® AntiVirus (OEM edition) PC-Doctor™ ThinkPad Utilities IBM Update Connector™.15 Documents of the least of					
Battery - type Battery - life ¹⁰	Lithium Ion 6-cell / intelligent Up to 2.1 hrs	, ,,	Downloadable IBM Director Agent Software Delivery Assistant					
Architecture	graphics controller,PCI bus) / ALi® M1: Low Pin Count [LPC] interface, USB, p PCI1510 CardBus controller) / LPC bu	to 2.1 hrs I RADEON IGP 330M chipset / IGP 330M northbridge (memory controller, phics controller, PCI bus) / ALi® M1535+ southbridge (ATA-100 EIDE, v Pin Count [LPC] interface, USB, parallel, audio) / PCI 2.1, 32-bit 33MHz (TI® I1510 CardBus controller) / LPC bus 33MHz (PC87392 Super I/O for parallel)						
Port replicator Docking station PC Card Std slots Ports	No port replicator support No docking station support One Type II or one Type III / CardBus: Two USB (Version 1.1) / parallel / exte RJ-45 (ethernet) / no keyboard or mou	rnal monitor (DB-15) / RJ-11 (modem) /	Universal 72 watt AC adapter PC 2001 and PXE 2.0-compliant					
Video out IEEE 1394 Wireless antenna Mini PCI CDC Modem Ethernet	56K V.90 (V.92-designed) modern in	/) CDC) socket (used by modem) / not accessible	cupport during the warranty ¹²					
Audio support Security Security chip	Soft audio / ICH AC97 controller / Dire- mono speakers / 1 watt / volume up, do microphone input jack (3.5 mm; mono)	ctSound® support / AD1981B AC97 codec /	ServicePac®, 22 1yr IOR 9x5 NBD 30L9188					
Limited warranty ¹² Service options	1 year - EasyServ ^{TM,19} onsite pickup an Service upgrades ²² provide up to five y coverage from date of ThinkPad purch	rears of onsite or depot repair service	30L9195 ServicePac 4 yr IOR 9x5 NBD 30L9194 ServicePac 5 yr IOR 9x5 NBD					
256 MB PC2100 D 512 MB PC2100 D 30GB Hard Disk 9 40GB HS Hard Dis IBM 4GB Microdri IBM 128MB USB IBM 256MB USB IBM USB Portable IBM USB Portable IBM USB 2.0 Port IBM USB Serial P: GemPC400 Smar	sk 9.5mm (5400 rpm) 08K9816 IE 09N4280 TI 09N4280	30L9196 ServicePac 2 yr P&L P/U Depot 30L9191 ServicePac 3 yr P&L P/U Depot 30L9192 ServicePac 3 yr P&L P/U Depot 69P9195 ServicePac 5 yr P&L P/U Depot 69P9197 Other ServicePac options at ibm.com/services/its/us/source/ wamomxeu.pdf Post-warranty annual maintenance agreements at ibm.com/services/its/us/source/						
	DGE PC Card Wireless 58P8782 O	maspspleu.pdf						

Type-model	Processor	Speed GHz	Memory	Screen	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem	Ethernet on S planar	: Security chip	/ Preload	Workhorse (or Global (or Entry (E	G) Avail
2684-KJU 2684-KAU 2684-KNU	Celeron® Celeron Celeron	2.2 2.2 2.2	128MB 256MB 256MB	14.1" XGA 14.1" XGA 14.1" XGA	20GB 30GB 20GB	CD Combo CD	None None None	Modem Modem Modem	10/100 10/100 10/100	No ۱	Windows XP Hor Windows XP Pro Windows XP Pro	No ´	Apr 2004 Apr 2004 Apr 2004

Positioning Processor L2 cache Memory	Mainstream performance and features; Mobile Intel® Celeron 2.2GHz with 400 256KB / on die (at processor speed) / E 128MB or 256MB std / 1GB max ⁷ / PC	DMHz system bus ECC 2100 266MHz DDR1 / non-parity /		SOFTWARE ¹⁴ Windows XP Home models - Microsoft® Windows® XP Home Edition ²⁰
Diskette drive CD Combo Ultrabay™2000 Disk	None standard / use optional USB-bas Some: CD-ROM / 24X-10X° speed / fi Some: Combo / 24X/10X/24X/8X ²¹ sp None 20 or 30GB ⁸ , 4200 rpm, 9.5mm, S.M.A. 9.5mm high bay	ixed, not removable need / fixed, not removable	t avaii	
Display	14.1" (358.1mm) XGA (1024x768) TF1 easy-open cover to unlatch and open w			(in hidden protected area) Preloaded (all)
		d in northbridge / 16MB DDR1 (DDR-SD -15 connector / up to 1600x1200 at 85Hz /		Access IBM ´Access Connections
Keyboard TrackPoint® Touch pad ThinkLight™	TrackPoint pointing device, "Press-to-S	t / pitch: 19mm; stroke: 2.7mm (std-size Select," Internet Scroll Bar ¹³ , magnifying classic dome and soft rim TrackPoint cap	glass/	 Adobe Acrobat Reader IBM Rapid Restore™ PC IBM RecordNOW and Drive Letter Access powered by Sonic products (combo model)
Dimensions ³	12.3 x 10.0 x 1.53" / 313mm x 254mm x with optical drive and battery: <i>KJU/KNU KAU</i> :	<i>J:</i> 5.9 lb (2.67kg); 6.0 lb (2.72kg)		 InterVideo WinDVD (combo model) Norton® AntiVirus (OEM edition) PC-Doctor™ ThinkPad Utilities
Case material Battery - type Battery - life ¹⁰	Color: black; All: Acrylonitrile-Butadi Lithium Ion 6-cell / intelligent Up to 2.1 hrs	ene-Styrene (ABS) plastic		 IBM Update Connector^{TM,15} Downloadable IBM Director Agent
Port replicator Docking station PC Card Std slots Ports	graphics controller, PCI bus) / ALi® M1 Low Pin Count [LPC] interface, USB, p (TI® PCI1510 CardBus controller) / LPi No port replicator support No docking station support One Type II or one Type III / CardBus	arallel, audio) / PCI 2.1, 32-bit 33MHz C bus 33MHz (PC87392 Super I/O for pa	urallel)	Software Delivery Assistant System Migration Assistant License (CD not included) Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client Universal 72 watt AC adapter
Video out IEEE 1394 Wireless antenna Mini PCI CDC Modem Ethernet	RJ-45 (ethernet) / no keyboard or mou None None / can upgrade to wireless via opt No Mini PCI slot (Communications Bay One Communications Daughter Card (56K ⁶ V.90 (V.92-designed ²⁸) modem in 10/100 ethernet on planar / Broadcom [®]	se or serial or infrared port ional PC Cards /) CDC) socket (used by modem) / not acces CDC / Agere® chipset BCM5901 (PHY/MAC) / PXE / Wake on	LAN®	PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant IBM Rapid Restore PC available to protect software image and data International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹²
Security Security chip Limited warranty ¹²	mono speakers / 1 watt / volume up, do microphone input jack (3.5 mm; mono)	/ headphone jack (3.5 mm; stereo) / no lir ord / supervisor password / security keyh	ne-in jack	ServicePac®. 22 1yr IOR 9x5 NBD 30L9188 ServicePac 2 yr IOR 9x5 NBD 30L9189 ServicePac 3 yr IOR 9x5 NBD 30L9195
Service options	Service upgrades ²² provide up to five y coverage from date of ThinkPad purch	rears of ónsite or depot repair service ase (including warranty period)		ServicePac 4 yr IOR 9x5 NBD 30L9194 ServicePac 5 yr IOR 9x5 NBD 30L9196
256 MB PC2100 D 512 MB PC2100 D 30GB Hard Disk 9 40GB HS Hard Dis IBM 4GB Microdriv IBM 128MB USB 2 IBM 256MB USB 2 IBM USB Portable IBM USB Portable IBM USB 2.0 Porta IBM USB Serial Pa	DR-SDRAM CL2.5 SOD 10K0030 M DR-SDRAM CL2.5 SOD 10K0032 Ti 5mm (4200 rpm) 09N4268 Ti 5k 9.5mm (5400 rpm) 08K9816 IE 09N4280 Ti 2.0 Memory Key 22P9229 IE 2.0 Memory Key 22P9025 IE 05K9276 IE 05CD-ROM 33L5151 IE 4ble Combo Drive 22P9194 IE 4rallel Adapter 22P5298 IE	lultiple Multiple Battery Charger II hinkPad 72W AC Adapter hinkPad 72W AC/DC Combo Adapter BM USB Keyboard with UltraNav 3hinkPad Monitor Stand 2001 2BM 11a/b/g Wireless CardBus Adapter 3BM M400 Projector 3BM E400 Projector 3BM C400 Projector 3BM Optical 3-Button Travel Wheel Mouse 3BM Optical 3-Button ScrollPoint® Mouse 3BM Optical 3-Button ScrollPoint® Mouse	1P8950 2P5265 1P9101 037A04 038A04 039A04 1P7410	ServicePac 2 yr P&L P/U Depot 30L9191 ServicePac 3 yr P&L P/U Depot 30L9192 ServicePac 4 yr P&L P/U Depot 69P9195 ServicePac 5 yr P&L P/U Depot 69P9197 Other ServicePac options at ibm.com/services/its/us/source/ wamomxeu.pdf Post-warranty annual maintenance agreements at
Kensington® Micro Ericsson® GC82 E	saver® Security Cable 73P2582 Le		0K0209	ibm.com/services/its/us/source/ maspspleu.pdf (R40FA) © IBM Corp. October 200

							Mir: DO		E4h a 1			\A/ '	.h.a.r ^	A/\
Type-model P	rocessor	Speed GHz	Memory	Screen	Disk GB ⁸	Optical	Mini PCI Comm Bay wireless	CDC modem	Ethernet on planar	Securi chip		or G	khorse (\ Blobal (G Entry (E)	i) Avail
2684-HYU (schools o These mo	rganize odels for	d and opera education	ated exclusiv are for sale	ad R40 ely for direct fr	e noteb educati om IBN		s for usé by n Authorize	qualified s d Educatio	studen on Res	Windows XP F Windows XP F K-12 (or higher ts and/or teacher eller.	ro accı	No O	lar 2003 oct 2003
Positioning Processor L2 cache Memory Diskette drive CD Ultrabay™ 200 Disk Display Graphics contr Graphics - exte Keyboard TrackPoint® Touch pad ThinkLight™ Dimensions³ Approximate we Case material Battery - type Battery - life¹⁰ Architecture Port replicator Docking station PC Card Std s Ports Video out	F F • • • • • • • • • • • • • • • • • •	SO Windows XP Pr Microsoft Winc Professional ²⁰ ⇒ Disk-to-Disk R (in hidden prot Preloaded Access IBM Access Conne Adobe Acroba IBM Rapid Res Norton [®] AntiVi PC-Doctor [™] ThinkPad Utilit IBM Update Co Downloadable IBM Director A Software Deliv System Migrat License (CD not Lotus [®] SmartS Lotus Notes [®] S	o mo dows ecov ections Rea store rus ((ies ennec ery A on As inclu uite®	Experiments of the second of t	um and									
IEEE 1394 Wireless anter Mini PCI 11b Wi-Fi³² CDC Modem Ethernet Audio support Security Security chip Limited warran Service option:	I Std slots One Type II or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door Two USB (Version 1.1) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial or infrared port It None None UltraConnect™ Antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable 11b Wi-Fi³² wireless⁴, Mini PCI, Intersil® Prism 2.5 chipset One Communications Daughter Card (CDC) socket (used by modem) / not accessible 56k® V.90 (V.92-designed²⁵) modem in CDC / Agere® chipset 10/100 ethernet on planaer / Broadcom® BCM5901 (PHY/MAC) / PXE / Wake on LAI Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speakers / 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; mono) / headphone jack (3.5 mm; stereo) / no line in Power-on password / hard disk password / supervisor password / security keyhole None varranty¹² 1 year - EasyServ™¹¹¹ onsite pickup and delivery courier service									pn FACO	Universal 72 wa PC 2001 and PX ACPI 1.0b and 2.0 BM Rapid Resto protect softwa anternational Wa 24 hour x 7 day ¹ support during ServicePac ^{®, 22} 1 ServicePac 2 yr ServicePac 3 yr ServicePac 4 yr	E 2.0 0-co 0-com- ore Pore re im- re im- re im- the value of the	D-compliant inpliant inpliant inpliant in a cape and age and y Service free harwarranty in a system of the system	ant able to I data e ¹⁷ dware I ¹² NBD 0L9188 0 0L9189 0 0L9195
256 MB PC21 512 MB PC21 30GB Hard D 40GB HS Hai IBM 4GB Mic IBM 128 MB L IBM 256 MB L IBM USB Por IBM USB Por IBM USB 2.0 Portable 40G IBM USB Ser GemPC400 S IBM Turbo 18	B PC2100 DDR-SDRAM CL2.5 SOD 10K0038 B PC2100 DDR-SDRAM CL2.5 SOD 10K0030 B PC2100 DDR-SDRAM CL2.5 SOD 10K0032 B Multiple Multiple Battery Charger II ThinkPad 72W AC/DC Combo Adapter ThinkPad 72W AC/DC Combo Adapter S1PM USB Keyboard with UltraNav ThinkPad Monitor Stand 2001 22P5 IBM USB Z.0 Memory Key 22P9025 B B POrtable Diskette Drive 05K9276 ISB Portable Diskette Drive 05K9276 ISB Portable CD-ROM 33L5151 ISB Serial Parallel Adapter 22P5298 ISB Serial Parallel Adapter 22P5298 ISB Serial Parallel Adapter 22P5298 ISB Portable CD-ROM 31P8901 IsM ILC300 Conference Room Projector 0039 IBM Optical 3-Button Travel Wheel Mouse 31P7 ISB Optical 3-Button Travel Wheel Mouse 31P7 ISB Optical 3-Button ScrollPoint® Mouse 31P7 ISB Optical 3-Button ScrollPoint® Mouse 31P7 ISB Optical 3-Button Travel Wheel Mouse 31									118	ServicePac 5 yr ServicePac 2 yr ServicePac 3 yr ServicePac 4 yr ServicePac 5 yr Other ServicePa ibm.com/ser wamomxeu.p Post-warranty ar agreements at ibm.com/ser maspspleu.pc	P&L P&L P&L I c opti rices, df nnual	P/U Dep BP/U Dep BP/U Dep 6 BP/U Dep 6 Bons at Cits/us/si mainter	0 0L9196 pot 0L9191 pot 0L9192 pot 9P9195 pot 9P9197 ource/ nance

			Mini PCI		et IEEE Security Workhorse (W)
Type-model Proce	Speed ssor GHz Memory Screen	Graphics Disk memory GB ⁸ Optica	Comm Bay I wireless	CDC on modem planar	1394 Chip or Global (G) Avail port Preload or Entry (E) date
2681-DBU Pentiur 2681-FU Pentiur 2681-FU Pentiur 2681-FCU Pentiur 2681-GMU Pentiur 2681-GHU Pentiur 2681-K3U Pentiur 2681-L7U Pentiur	1.6 128MB 14.1" XG 1.6 128MB 15.0" XG 1.6 128MB 15.0" XG 1.7 128MB 15.	A 16MB 20G Combo A 16MB 20G CD A 16MB 20G DVD A 16MB 20G DVD A 16MB 20G DVD A 16MB 20G DVD A 16MB 40G Combo A 16MB 40G COmbo A 32MB 40G DVD A 32MB 40G DVD	Open; wireless upg Open; wireless upg 11a/bWi-Fi Open; wireless upg Open; wireless upg Open; wireless upg 11bWi-Fi ³² Open; wireless upg Open; wireless upg Open; wireless upg Open; wireless upg	Modem 10/100 Modem 10/100 Modem 10/100 Modem 10/100 Modem 10/100 Modem 10/100 Modem 10/100 Modem 10/100 Modem 10/100 Modem 10/100	0 1394 XP Pro Jan 2003 1 1394 XP Pro Jan 2003 1 1394 XP Pro E Jan 2003 XP Pro Jan 2003 XP Pro Jan 2003 XP Pro Jan 2003 Yes XP Pro W Jan 2003 XP Pro Jan 2003 XP Pro Jan 2003 XP Pro Jan 2003
Positioning Processor	Mobile Intel® Celeron 1.60	Hz with 400MHz frontsi	de bus or		SOFTWARE ¹⁴ Windows XP Pro models
L2 cache Memory	Mobile Intel Pentium 4 Pro enhanced Intel SpeedStep Celeron: 256KB; Pentium 4 128 or 256MB std / 1GB ma two 200-pin SO-DIMM soci	[™] technology¹ and 400N - <i>M:</i> 512KB ; <i>All:</i> on die (ax² / PC2100 266MHz [MHz frontside bus at processor speed) / E DDR-SDRAM / non-pa	rity / CL2.5 /	- Microsoft® Windows® XP Professional® Disk-to-Disk Recovery (in hidden protected area)
Diskette drive CD DVD Combo Ultrabay 2000 Disk Display	None standard / use option Some: CD-ROM / 24X-10. Some: DVD-ROM / BX-3.3 Some: DVD-ROM/CD-RW One modular bay for intercl 20GB ⁸ , 40GB, or 60GB, 42 9.5mm high bay / supports 3 Some: 13.3" (337.8mm) XG Some: 14.1" (358.1mm) XG Some: 15.0" (381mm) XG Some: 15.0" (381mm) SXG All: Easy-open cover to	X° speed / bootable / rei X° speed / bootable / re // 24X/10X/24X/8X ²¹ sp nangeable devices / Ult 50 rpm, 9.5mm, S.M.A.F. 2nd disk with optional HI 5A (1024x768) TFT color 6 (1024x768) TFT color	movable from Ultrabay emovable from Ultrabay peed / removable from i rabay Plus-compatible R.T. / removable and up DD Adapter in Ultrabay or / Active Matrix / 150 ro / Active Matrix / 150 nit olor / Active Matrix / 15	2000 y 2000 Ultrabay 2000 /12.7 mm high ogradable / 2000 hits / hits /	Preloaded Access IBM Adobe Acrobat Reader IBM Rapid Restore™ PC IBM RecordNOW and DLA by Veritas (combo models) InterVideo WinDVD (DVD models) Norton AntiVirus (OEM edition) PC-Doctor™ ThinkPad Utilities IBM Update Connector™ Downloadable
Graphics controller	Some: ATI® Mobility™ RA Some: ATI Mobility RADE	DEON™ / AGP 4X / 16ľ	MB DDR-SDRAM		IBM Director Agent Software Delivery Assistant
Keyboard TrackPoint® Touch pad ThinkLight™	External monitor support via 87-key / Access IBM buttor TrackPoint® pointing device UltraNav™ multi-pointing sulluminates the keyboard to	n / palm rest / pitch: 19n e, "Press-to-Select," Inte stem / touch pad below improve visibility in low	nm; stroke: 2.7mm (sto ernet Scroll Bar ¹³ , magi v keyboard / Tap Zones -light conditions	l-size keys) nifying glass	System Migration Assistant Client Security Software (models with security chip) License (CD not included) Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Case material Battery - type Battery - life ¹⁰ Architecture	13.3/14.1" models: 12.3" x with optical drive and batter Color: Black; All: ABS plas Lithium Ion 8-cell / intellige; 13.3"models: 3.8 hrs; 14.1 Intel 845MP chipset / 8284 82801DBM ICH4-M I/O Co Low Pin Count (LPC) interf PCI1510 CardBus controlle LPC bus 33MHz (security Cone Type II, on Type II, on Type II, on Two USB (Version 2.0) / pa RJ-11 (modem) / RJ-45 (et	y: 13.3" models: 6.2 lb; tic nt / supports unique 2nd r models: 3.8 to 4.0 hrs; 5MP Memory Controlle ntroller Hub (ATA-100 Eace, USB, Firmware Hur, TSB43AB21 1394 (so hip; PC87392 Super I/C one Type III / CardBus rallel / external monitor	battery in Ultrabay 2000 15.0" models: 3.4 to 3. r Hub (MCH-M) / EIDE, PCI bus, etherne ub) / PCI bus 2.2 32-bit, me), Mini PCI, external / O for diskette, parallel, 32-bit / PCMCIA 2.1 / t (DB-15) / infrared (4M	t MAC, 33MHz (TI® expansion) / infrared) integrated door	Universal 72 watt AC adapter Asset ID (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant IBM Rapid Restore PC available to protect software image and data International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free hardware
Video out IEEE 1394 Mini PCI 11a/b Wi-Fi ²⁷	S-video out port (TV out) / c Some: IEEE 1394 (FireWir One Mini PCI type III slot (C Some: 11a/b Wi-Fi ²⁷ wirele	e) port / 4-pin connecto Communications Bay) /	r customer upgradable AR5001X chipset, Ultra	aConnect™	support during the warranty ¹² ServicePac®. ²² 1yr IOR 9x5 NBD 30L9188 ServicePac 3 yr IOR 9x5 NBD
Wireless upg ³⁶ 11b Wi-Fi ³²	Some: UltraConnect™ ante Some: 11b Wi-Fi ³² wireless	nna built in both sides o a ⁴ , Mini PCI, Intersil® Pris	of display for wireless M sm 2.5 chipset, UltraCo	ini PCI options nnect™	30L9195 ServicePac 3yr P&L P/U Depot 30L9192
CDC Modem Ethernet Audio support	One Communications Daug	signed ²⁹) modem in CD0 oard / Intel 82562EZ ch roller / DirectSound® su	t (used by modem) / not C / Agere® chipset ip (physical layer) ipport / AD1891A AC97		ServicePac 5yr P&L P/U Depot 69P9197 Other ServicePac options at ibm.com/services/its/us/source/ wamomxeu.pdf
Security	microphone input jack (3.5 Power-on password / hard Some: IBM Embedded Se authentication / local file en	mm) / headphone jack disk password / superv curity Subsystem 2.0	(3.5 mm) / no line in jac isor password / securit ³³ / hardware key stora	y keyhole ge / multi-factor	IBM 1GB Microdrive™ 07N5574 Cisco Aironet Wirless 802.11b Mini PCI 31P8301 IBM 11a/b/g Wireless Mini PCI
128MB PC2100 D 256MB PC2100 D 512MB PC2100 D Ultralight 8X Max CD-RW/DVD Cor Second HDD Ada ThinkPad Remova IBM USB Portable	nbo IV Ultrabay 2000 25 oter for Ultrabay 2000 05 able Diskette Drive 05	DK0028 40GB HS Har DK0030 Optical 3-Butt DK0032 ThinkPad R33 P2P9102 Ultrabay 2000 PF6991 ThinkPad Mul BK6068 IBM USB Key	d Disk 9.5mm (5400 rp. ton Travel Wheel Mous 2/R40 Series Li-Ion Bat 0 Li-Ion battery ltiple Battery Charger II board with UltraNav Portable CD-RW Drive	om) 08K9816 e 31P7410 tery 02K7052 02K6646 22P9040 31P8950	Adapter 31P9701 IBM 11a/b/g Wireless CardBus Adapter 31P9101 ThinkPad 72W AC Adapter 02K6699 ThinkPad Port Replicator II 74P6733 ThinkPad Mini Dock 287810U Optical 3-Button Travel Wheel Mouse 31P7410 Other options at ibm.com/pc/us/ accessories

Type-model Proce	Speed essor GHz Memory Screet	Graphics Dis	CDC modem	on	t IEEE Secu 1394 chi port	p o		se (W) al (G) Avail y (E) date		
2681-4GU Celeror 2681-5AU Celeror 2681-59U Celeror 2681-69U Celeror 2681-7FU Celeror	n 1.8 256MB 15.0" XC n 1.8 128MB 15.0" XC n 2.0 128MB 14.1" XC	A 16MB 30 A 16MB 30 A 16MB 30	G Combo G DVD G Combo	Open; wireless upg Open; wireless upg Open; wireless upg Open; wireless upg Open; wireless upg	Modem Modem Modem	10/100 10/100 10/100		XP Pro XP Pro XP Pro	No No No	May 2003 May 2003 May 2003 Oct 2003 Oct 2003
Positioning Processor L2 cache Memory	Mainstream performance at Mobile Intel® Celeron 1.8 256KB / on die (at process 128 or 256MB std / 1GB m two 200-pin SO-DIMM soo	or 2.0GHz with or speed) / EC ax ⁷ / PC2100	n 400MHz s C 266MHz D	system bus DR-SDRAM / non-pa	rity / CL2 available	.5 /	Windows 2 - Microsoft Professio	® Windows	odels s® XP	
Diskette drive CD DVD Combo Ultrabay 2000 Disk Display	None standard / use optior Some: CD-ROM / 24X-10. Some: DVD-ROM / Some: DVD-ROM/CD-RW One modular bay for interco 20 or 30GB ⁸ , 4200 rpm, 9.5 9.5mm high bay / supports Some: 14.1" (358.1mm) X	(° speed / boo X° speed / boo / / 24X/10X/24 hangeable de mm, S.M.A.R. 2nd disk with o GA (1024x768	table / remotable / remotable / rer X/8X ²¹ spevices / Ultr T. / remov potional HE B) TFT colo	ovable from Ultrabay novable from Ultrabay ted / removable from U abay Plus-compatible able and upgradable / D Adapter in Ultrabay or / Active Matrix / 150	2000 / 2000 Jltrabay 2 /12.7 mm 2000 nits		Preloaded Access II Access C Adobe Ac IBM Rapi IBM Rec	BM Connection crobat Rea d Restore ordNOW a	l area) s der ™ PC und DL	
	Some: 15.0" (381mm) XG. All: easy-open cover to ATI® Mobility™ RADEON External monitor support vi 87-key / Access IBM butto TrackPoint® pointing device UltraNav™ multi-pointing s Illuminates the keyboard to	unlatch and o M / AGP 4X / 1 a analog DB-1 n / palm rest / e, "Press-to-S ystem / touch	/s)	 InterVide InterVide Norton AI PC-Docto ThinkPao IBM Upda Download IBM Diree Software 	ntiVirus (O or™ d Utilities ate Connec able ctor Agent) (DÝD EM ed ctor™,1	lition) ´			
Dimensions ³ Approximate weight ² Case material Battery - type Battery - life ¹⁰	14.1" models: 12.3" x 10" x 15.0" models: 13" x 10.5" x with optical drive and batte Color: black; All: Acryloni Lithium Ion 8-cell / intellige 3.95 hrs	1.6"; 329mm) ry: <i>14.1" mode</i> <i>15.0" mode</i> rile-Butadiene		 System N Client Se with secu License (C Lotus® Sr 	ligration A curity Soft rity chip) D not inclu	ssistai ware (i ided) Millen	nt models inium and			
Architecture PC Card Std slots Ports	Intel 845MP chipset / 8284 82801DBM ICH4-M I/O Co Low Pin Count (LPC) inter PCI1510 CardBus controlle LPC bus 33MHz (security of One Type I, one Type II, on Two USB (Version 2.0) / pi RJ-11 (modem) / RJ-45 (et	ntroller Hub (/ ace, USB, Fir er, TSB43AB2° chip; PC87392 one Type III / arallel / extern	ATA-100 E mware Hu 1 1394 (son 2 Super I/C CardBus (al monitor	IDE, PCI bus, etherne b) / PCI bus 2.2 32-bit, ne), Mini PCI, external / for diskette, parallel, 32-bit / PCMCIA 2.1 / (DB-15) / infrared (4M	33MHz (expansion infrared) integrate	n) /	Universal 7	'2 watt AC	adapt	er
Video out IEEE 1394 Wireless antenna Mini PCI Wireless upg ³⁶ CDC Modem Ethernet Audio support Security Security chip	S-video out port (TV out) / IEEE 1394 (FireWire) port UltraConnect™ Antenna but One Mini PCI type III slot (Wireless upgradable with w One Communications Daug 56K° V.90 (V.92-designed² 10/100 ethernet on mothert Soft audio / ICH AC97 constereo speakers / 1 watt / w microphone input jack (3.5 Power-on password / hard None	one 4-pin indu / 4-pin connec ilt into the disp Communication ireless Mini Pt phter Card (CE) modem in C oard / Intel 82 roller / Direct olume up, do mm) / headph	ole	PC 2001 at ACPI 1.0b a CIM and DI IBM Rapid protect s Internation 24 hour x 7	d over nethod PXE 2.0 and 2.0-co MI 2.0-con MI 2.0-con MI 2.0-con MI 2.0-con Oftware im al Warrant day ¹⁸ toll- during the	work) D-compliant Inpliant C availage and Ity Service hawarrar DR 9x5	pliant nt iliable to nd data vice ¹⁷ ardware nty ¹² 5 NBD 30L9188			
Limited warranty ¹² 128 MB PC2100 E 256 MB PC2100 E 512 MB PC2100 E CD-RW/DVD Cor Ultralight 8X Max 24X-10X CD-ROM Second HDD Ada ThinkPad Multi-Bi ThinkPad Slim Dr ThinkPad Remov. IBM USB 2.0 Port IBM USB 2.0 Port IBM USB 2.0 Port IBM USB Serial P IBM Optical 3-Butt IBM Optical 3-Butt IBM iLM300 Micro IBM iLM300 Value	DVD Ultrabay 2000 M Ultrabay 2000 Drive pter for Ultrabay 2000 Drive 2 ive Adpr for Ultrabay 2000 able Diskette Drive be Diskette Drive cable CD-RW Drive cable CD-RW Drive cable 40GB Hard Disk arallel Adapter on Travel Wheel Mouse on ScrollPoint® Mouse be Data/Video Projector cerence Room Projector	0K0028 Thin 0K0030 Ultr 0K0030 Thin 0K0032 Thin 2P6991 300 2P9102 400 5K9233 800 2P7015 IBM 2P7515 IBM 2P4557 IBM 8K9603 Ciss 5K9276 IBM 9N4255 Thin 2P5298 Thin 1P7410 Ger 1P7405 IBM 037A03 Thin 038A03 Thin	abay 2000 akPad R32 abay 2000 akPad Mult aB Hard Dia B HS Hard Dia I 1GB Micra I 64MB US I 256MB U co Aironet I 11a/b/g W akPad 72W akPad 72W akPad Ultra akPad Mini akPad Mini	/R40 Series Li-Ion Ba Li-Ion battery iple Battery Charger I sk 9.5mm (4200rpm) d Disk 9.5mm (5400 rpm) odrive™ with PC Card B 2.0 Memory Key SB 2.0 Memory Key Wireless 802.11b Min /ireless CardBus Adap /ireless CardBus Adap / AC/DC Combo Adap mart Card Reader/Wri ooard with UltraNav abay Plus Numeric Ke	ttery 02h 02h 09h 09h 08h 08h 07h 22f 22h i PCI 31h oter 32h oter 32h oter 22h oter 32h oter	(6646 P9040 N4268 (9816 (9869 N5574 P9024 P9025 P8301 P9701 (6699 P9010 P8950 P6733 7810U	ServicePace Servic	a 3 yr IOR s a 4 yr IOR s a 5 yr IOR s a 2 yr P&L a 3 yr P&L a 4 yr P&L a 5 yr P&L a 5 yr P&L a 6 yr P&L a 6 yr P&L a 6 yr P&L a 6 yr P&L a 7 yr P&L a 8 yr P&L a 8 yr P&L a 9 y	9x5 NE 9x5 NE 9x5 NE P/U D P/U D P/U D cions a vits/us.	30L9189 3D 30L9195 3D 30L9194 3D 30L9196 epot 30L9191 epot 69P9195 epot 69P9195 t/source/

Type-model Proce	Speed ssor GHz Memory		raphics Dis		Mini PCI Comm Bay wireless	CDC modem	Etherner on planar	t IEEE S 1394 port			rkhors Globa	al (Ġ)	Avail
2681-J7U Pentiur 2681-J8U Pentiur 2681-JCU Pentiur	n® 4-M 2.2 128MB 1 n 4-M 2.2 256MB 1 n 4-M 2.2 256MB 1	4.1" XGA	16MB 30 16MB 40 16MB 30	G CD G Combo G DVD	Open; wireless upg ^{3t} Open; wireless upg Open; wireless upg	⁶ Modem Modem Modem	10/100 10/100 10/100	1394	Yes	XP Pro XP Pro XP Pro	E No No	May 2 May 2 May 2	2003 2003 2003
2681-JQU Pentiur 2681-JDU Pentiur 2681-JEU Pentiur	n 4-M 2.2 256MB 1 n 4-M 2.2 256MB 1 n 4-M 2.2 256MB 1 n 4-M 2.2 256MB 1	4.1" XGA	16MB 40 16MB 40 16MB 40	G DVD G Combo G DVD	Cisco® 802.11b 11b Wi-Fi ³² 11a/b Wi-Fi ²⁷ 11a/b Wi-Fi	Modem Modem Modem Modem	10/100 10/100 10/100		Yes Yes Yes	XP Pro XP Pro XP Pro XP Pro	No No No	May 2 May 2 May 2 May 2	2003 2003 2003
2681-KMU Pentiur 2681-JHU Pentiur		15.0" XGA 3 14.1" XGA 3	32MB 40 32MB 60	G DVD G Combo	11a/b Wi-Fi Cisco 802.11b Open; wireless upg Open; wireless upg	Modem	10/100 10/100	1394 1394	Yes Yes	XP Pro	No No	May 2 May 2 May 2 May 2	2003 2003
2681-KLU Pentiur 2681-KPU Pentiur 2681-KQU Pentiur 2681-Q5U Pentiur	n 4-M 2.2 256MB 1 n 4-M 2.2 256MB 1 n 4-M 2.2 256MB 1 n 4-M 2.4 256MB 1 n 4-M 2.4 256MB 1	5.0" XGA 3 5.0" XGA 1 5.0" XGA 1 5.0" SXGA-	32MB 400 16MB 200 16MB 300 + 32M 400	G Combo G DVD G DVD G DVD	Open; wireless upg Open; wireless upg 11a/b Wi-Fi Open; wireless upg	Modem Modem Modem Modem Modem	10/100 10/100 10/100 10/100	1394 1394 1394	Yes Yes Yes	XP Pro XP Pro XP Pro XP Pro	No No No No	May 2 May 2 May 2 May 2 May 2	2003 2003 2003 2003
Positioning Processor	Best blend of portal Mobile Intel® Penti	bility and ess	sential fea	ures; two-s	spindle system	Wodem	10/100	1004		SOFTWA		ividy 2	
L2 cache Memory	enhanced Intel Spe 512KB; All: on die (128 or 256MB std /	edStep™ te at processo 1GB max ⁷ /	chnology r speed) / / PC2100	and 400M ECC 266MHz D			2.5 /	- Micro Profe	soft® ' ssiona to-Dis	k Recove	® XP		
Diskette drive CD DVD Combo Ultrabay 2000	Some: CD-ROM/ Some: DVD-ROM Some: DVD-ROM One modular bay fo	24X-10X ⁹ s / 8X-3.3X ⁹ s /CD-RW / 2 or interchang	peed / boo speed / bo 4X/10X/2 geable de	otable / rem otable / rem IX/8X ²¹ spe vices / Ultr	SB-based diskette dr novable from Ultrabay movable from Ultraba eed / removable from abay Plus-compatible	/ 2000 y 2000 Ultrabay //12.7 mn		• Acce • Adob • IBM F	ded ss IBN e Acro Rapid	obat Read Restore™	der MPC		
Display	9.5mm high bay / su Some: 14.1 " (358.1 Some: 15.0 " (381m	upports 2nd mm) XGA (nm) XGA (10	disk with one of the disk with	ptional HD TFT colo FFT color /	/ removable and upgr D Adapter in Ultrabay r / Active Matrix / 150 nit Active Matrix / 150 nit lor / Active Matrix / 15	nits ts		VeritaInter\	as (co /ideo ' n Anti	dNOW ar mbo mod WinDVD iVirus (OE ™	lels) (DVD	mode	
·	All: Easy-open of Some: ATI® Mobility Some: ATI Mobility	cover to unla ity™ RADEO y RADEON	atch and o ON™ / AG 7500 / AC	pen with or P 4X / 16M SP 4X / 32I	ne hand (two latches) IB DDR-SDRAM MB DDR-SDRAM			Downlo	Jpdate adab	e Connec o le	tor ^{TM,15}	5	
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Access IB TrackPoint® pointin	M button / pag device, "Pointing syste	alm rest / Press-to-S m / touch	pitch: 19m elect," Inte pad below	or / up to 1600x1200 at m; stroke: 2.7mm (sto rnet Scroll Bar ¹³ , mag keyboard / Tap Zones light conditions	d-size ke nifying g	ys)	IBM Director Agent Software Delivery Assistar System Migration Assistar Client Security Software (n with security chip)					ls
Dimensions ³ Approximate weight ² Case material Battery - type	14.1" models: 12.3' with optical drive ar Color: Black; All: A	x 10" x 1.5" nd battery: <i>1</i> crylonitrile-E	;15.0" mo 4.1" mode Butadiene	dels: 13" x els: 6.0 lb; -Styrene (/	10.5" x 1.6" 15.0": 6.7 lb	0		Licens - Lotus Lotus Univers	Millén alone	Clien			
Battery - life ¹⁰ Architecture	Intel 845MP chipse 82801DBM ICH4-N Low Pin Count (LP PCI1510 CardBus	o 4.0 hrs; 15 et / 82845MF /I I/O Contro C) interface controller, TS	5.0" mode P Memory Iller Hub (/ I, USB, Fir SB43AB2	s: 3.4 to 3. Controller ATA-100 E mware Hul I 1394 (son	6 hrs Hub (MCH-M) / IDE, PCI bus, etherne b) / PCI bus 2.2 32-bit, ne), Mini PCI, external	et MAC, 33MHz (expansio	(TI® on)/	Asset ID (system-specific accessed over network PC 2001 and PXE 2.0-co ACPI 1.0b and 2.0-compl				oliant nt	
PC Card Std slots Ports	One Type I, one Ty Two USB (Version RJ-11 (modem) / R	pe II, or one 2.0) / parallo J-45 (etherr	e Type III / el / extern net) / no k	CardBus 3 al monitor eyboard or	for diskette, parallel, 32-bit / PCMCIA 2.1 / (DB-15) / infrared (4M mouse or serial port	integrate	ed door	prote Interna 24 houi	ct sof tional x 7 d	tware ima Warranty ay ¹⁸ toll-f ring the v	age ar / Serv ree ha	nd dat ice ¹⁷ ardwa	ta
Video out IEEE 1394 Wireless antenna Mini PCI		(FireWire) p enna built in	ort / 4-pin to the disp	connector lay cover fo		nal recep	otion			^{, 22} 1yr IO 3 yr IOR 9		30L9 3D	9188
Wireless upg ³⁶ 11a/b Wi-Fi ²⁷			Mini PCI,	Atheros™ /	AR5001X chipset, Ultr	aConnec	ct™	Service	Pac 3	Byr P&L F	P/U De	30L9 pot 30L9	
11b Wi-Fi ³²	Some: 11b Wi-Fi ³² antenna bui	wireless ⁴ , M ilt in both sid	lini PCI, İn les of displ	tersil® Pris ay, Wi-Fi-c	m 2.5 chipset, UltraCo ertified					iyr P&L P		pot 69Ps	
Cisco 802.11b	chipset, Ulti One Communication	raConnect™ ons Daughte	antenna br Card (CI	ouilt in both OC) socket	Wireless 802.11b, Pr sides of display, Wi-Fi (used by modem) / no	i-certified		ibm.	com/	ePac opti services/ u.pdf			ce/
Modem Ethernet Audio support	10/100 ethernet on Soft audio / ICH AC	motherboard 197 controlle	d / Intel 82 er / Directs	562EZ chip Sound® sur	/ Agere® chipset o (physical layer) oport / AD1891A AC9 uttons / internal mic /	7 codec		PCI		t Wirless Wireless		31P8	
Security	microphone input ja Power-on passwor <i>Some:</i> IBM Embe	ack (3.5 mm d / hard disk dded Secur	n) / headpl < passwor rity Subsy	one jack (i d / supervis r stem 2.0 3	3.5 mm) / no line in ja sor password / securi ³ / hardware key stora es VPN security ¹⁶ / TO	ty keyhol ge / mult	le i-	Ada _l IBM 11 Ada _l	oter a/b/g ' oter	Wireless W AC Ad	CardE	31P9 3us 31P9	9101
Limited warranty ¹²			ickup and	delivery / s	ervice upgrades ²² ava	ilable				rt Replica ni Dock		74P6 2878	
256 MB PC2100 D 512 MB PC2100 D	DR-SDRAM CL2.5 DR-SDRAM CL2.5 DR-SDRAM CL2.5 lbo IV Ultrabay 2000	SOD 10K00 SOD 10K00	030 Thir 032 Thir	kPad Mult kPad R32	I Disk 9.5mm (5400 rr iple Battery Charger II 'R40 Series Li-Ion Bat Li-Ion battery	l [°] 22F ttery 02F	< 9816< 9040< 7052< 6646	Second Ultra Other o	I HDD bay 2	Adapter 000 s at ibm.c	for	08K6	6068

Type-model Proce	Speed ssor GHz Memory Screen	Graphics Disk memory GB ⁸ Optica	Mini PCI Comm Bay Il wireless	Ethern CDC on modem plana	et IEEE Security Workhorse (W) 1394 Chip or Global (G) Avail r port Preload model date				
2682-F9U Pentiur 2682-K2U Pentiur 2682-K4U Pentiur 2682-GHU Pentiur 2682-GLU Pentiur 2682-GLU Pentiur 2682-J8U Pentiur 2682-J8U Pentiur 2682-JAU Pentiur	m® 4-M 2.0 256MB 14.1" XG/m4-M 2.0 256MB 14.1" XG/m4-M 2.0 256MB 14.1" XG/m4-M 2.0 256MB 15.0" XG/m4-M 2.2 256MB 15.0" XG/m4-M 2.0 256MB 15.0" XG/m4-M 2.0 256MB 15.0" XG/m4-M 2.2 256MB 15.0" XG/m4-M 2.2 256MB 14.1" XG/m4-M 2.2 256MB 2.2 256MB 14.	A 16MB 20G DVD A 16MB 20G DVD A 16MB 40G DVD A 16MB 40G DVD A 32MB 40G DVD A 32MB 40G DVD A 32MB 40G DVD A 16MB 40G Combo A 16MB 40G Combo		Modem 10/10 Modem 10/10 Modem 10/10 Modem 10/10 Modem 10/10 Modem 10/10 Modem 10/10 Modem 10/10	0 Yes XP Pro W Jan 2003 0 Yes XP Pro W G Jan 2003 0 Yes XP Pro W G Jan 2003 0 Yes XP Pro W G Jan 2003 0 1394 Yes XP Pro W Jan 2003 0 1394 Yes XP Pro W Jan 2003 0 1394 Yes XP Pro May 2003 0 1394 XP Pro May 2003 0 1394 XP Pro May 2003				
Positioning	Best blend of portability and e				SOFTWARE ¹⁴				
L2 cache Memory Diskette drive	Mobile Intel® Pentium 4 Pro enhanced Intel SpeedStep™ 512KB / on die (at processor 256MB std / 1GB max² / PC² two 200-pin SO-DIMM sock None standard / use optiona Some: DVD-ROM / 8X-3.3X	cessor-M 2.0, or 2.26 technology¹ and 400N speed) / ECC 2100 266MHz DDR-S ets / std memory in on I Ultrabay™-based or	GHz with MHz frontside bus DRAM / non-parity / Clescocket / one socket a USB-based diskette dr	available rive	Windows XP Pro models - Microsoft® Windows® XP Professional²⁰ ⇒ Disk-to-Disk Recovery (in hidden protected area) Preloaded				
Combo Ultrabay 2000 Disk	Some: DVD-ROM/CD-RW / One modular bay for intercha 20GB ⁸ or 40GB, 4200 rpm, 9 9.5mm high bay / supports 20	24X/10X/24X/8X ²¹ sp angeable devices / Ult .5mm high, S.M.A.R.T	eed / removable from it rabay Plus-compatible . / removable and upgr	Últrabay 2000 /12.7 mm high radable /	Access IBM - Access Connections - Access Help - Access Support				
Display	•	(1024x768) TFT colo Inlatch and open with o	r / Active Matrix / 150 n one hand (two latches)		Adobe Acrobat Reader IBM Rapid Restore™ PC IBM RecordNOW and DLA by Veritas (combo models)				
·	Some: ATI® Mobility™ RAI Some: ATI Mobility RADE External monitor support via	ON 7500 / AGP 4X / 3	2MB DDR-SDRAM	85Hz / DDC2R	 InterVideo WinDVD (DVD models) Norton AntiVirus (OEM edition) 				
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Access IBM button TrackPoint® pointing device, UltraNav™ multi-pointing sys Illuminates the keyboard to i	/ palm rest / pitch: 19r "Press-to-Select," Inte stem / touch pad belov	nm; stroke: 2.7mm (sto ernet Scroll Bar ¹³ , mag v keyboard / Tap Zone:	d-size keys) nifying glass	PC-Doctor™ ThinkPad Utilities IBM Update Connector™.¹5 Downloadable IBM Director Agent				
Dimensions ³ Approximate weight ² Case material Battery - type Battery - life ¹⁰	14.1" models: 12.3" x 10" x 1 with optical drive and battery Color: Black; All: Acrylonitril Lithium Ion 8-cell / intelligent 14.1" wireless models: 3.8 h 15" wireless models: 3.4 h	14.1" models: 6.0 lb; e-Butadiene-Styrene / supports unique 2nd rs; 14.1" non-wireless	15.0" models: 6.7 lb (ABS) plastic battery in Ultrabay 200 models: 4.0 hrs;	0	Software Delivery Assistant System Migration Assistant Client Security Software (models with security chip) License (CD not included) Lotus® SmartSuite® Millennium and				
Architecture PC Card Std slots Ports	Intel 845MP chipset / 82845 82801DBM ICH4-M I/O Con Low Pin Count (LPC) interfa PCI1510 CardBus controller LPC bus 33MHz (security ch One Type I, one Type II, or o Two USB (Version 2.0) / par RJ-11 (modem) / RJ-45 (eth	troller Hub (ATA-100 I ce, USB, Firmware Hu TSB43AB21 1394 (Si ip; PC87392 Super I/ ne Type III / CardBus allel / external monitol	EIDE, PCI bus, etherne ub) / PCI bus 2.2 32-bit, me), Mini PCI, external o for diskette, parallel, 32-bit / PCMCIA 2.1 / (DB-15) / infrared (4N	33MHz (TI® expansion) / infrared) integrated doo	Lotus Notes® Stand-alone Client				
Video out IEEE 1394 Wireless antenna Mini PCI Wireless upg³6 Cisco 802.11b CDC Modem Ethernet Audio support	One Communications Daugh) port / 4-pin connector into the display cover ommunications Bay) / with wireless Mini PCI ini PCI, Cisco® Aironet™ antenna built in botheter Card (CDC) socke gned²®) modem in CDC ard / Intel 82562EZ choller / DirectSound® su	or for optimal wireless sig customer upgradable options Wireless 802.11b, Properties of display, Wi-Fit (used by modem) / no C/Agere chipset (physical layer) upport / AD1891A AC9	rism 2.0 i-certified ot accessible	Universal 72 watt AC adapter Asset ID (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant IBM ImageUltra™ Services available IBM Rapid Restore PC available to protect software image and data International Warranty Service¹ 24 hour x 7 day¹8 toll-free hardware support during the warranty¹²				
Security	microphone input jack (3.5 n Power-on password / hard d Some: IBM Embedded Sec authentication / local file end	nm) / headphone jack isk password / superv urity Subsystem 2.0 ryption / enhances VF	(3.5 mm) / no line in ja risor password / securi ³³ / hardware key stora PN security ¹⁶ / TCG-cor	ty keyhole ge / multi-facto	30L9197				
	3 years/1 year battery - Eas				ServicePac 4 yr IOR 9x5 NBD 69P9198				
256 MB PC2100 E 512 MB PC2100 E CD-RW/DVD Cor 24X-10X CD-ROI Second HDD Ada ThinkPad Multi-B ThinkPad Remov	M Ultrabay 2000 Drive 05 opter for Ultrabay 2000 08 ourner Ultrabay 2000 Drive 22 able Diskette Drive 08	K0030 Ultrabay 200 K0032 ThinkPad Mi P6991 40GB HS Ha K9233 GemPC400 Cisco Airone P7015 IBM 11a/b/g K9603 IBM 11a/b/g	32/R40 Series Li-Ion Ba 10 Li-Ion battery ultiple Battery Charger urd Disk 9.5mm (5400 r Smart Card Reader/W t Wireless 802.11b Mir Wireless Mini PCI Ada Wireless CardBus Ada	02K6646 II 22P9040 pm) 08K9816 riter 31P8901 ni PCI31P8301 apter 31P9701 apter 31P9101	ServicePac 5 yr IOR 9x5 NBD 69P9200 ServicePac 4 yr P&L P/U Depot 69P9199 ServicePac 5 yr P&L P/U Depot 69P9201 Other ServicePac options at ibm.com/services/its/us/source/				
IBM USB Serial P IBM iLV200 Value	table CD-RW Drive 22 erallel Adapter 22 Data/Video Projector 00	P5297 ThinkPad 72 P5298 ThinkPad Pc 38A03 ThinkPad Mi	W AC Adapter W AC/DC Combo Ada ort Replicator II ni Dock s at ibm.com /pc/us/ac	74P6733 287810U	wamomxeu.pdf Post-warranty annual maintenance agreements at ibm.com/services/its/us/source/ maspspleu.pdf				

					Mini PCI			IEEE S		,	Small a			
Type-model Proce	Speed ssor GHz Memory	Grapi Screen mem	nics Disk ory GB ⁸	Optical	Comm Bay wireless	CDC modem	on planar	1394 port		Preload	mediu busine			
	n 1.8 256MB 1 n®4-M 2.0 256MB 1	15.0" XGA 16N 14.1" XGA 16N	IB 20GB IB 20GB	DVD DVD	Open; wireless upg Open; wireless upg Open; wireless upg Open; wireless upg	Modem Modem	10/100 10/100		Yes Yes	XP Pro XP Pro	Yes Yes	May 2003 May 2003 May 2003 May 2003		
These	small and medium b	ousiness (SMB)	models a	re part o	of the IBM US ThinkP	ad Expre	ss Prog	ram						
Positioning Processor	Best blend of portal Mobile Intel® Cele Mobile Intel Pentiu enhanced Intel Spe	ron 1.8GHz witl um 4 Processo eedStep™ techr	n 400MHz r -M 2.0G H nology¹ an	frontsic Iz with d 400M	le bus or Hz frontside bus	-00		Windov	vs XP soft® V	Vindows	dels			
L2 cache Memory	256MB std / 1GB n	nax7 / PC2100 2	266MHz D	DR-SŒ	t processor speed) / E PRAM / non-parity / C socket / one socket a	L2.5/		Profes ⇒Disk-t (in hid	o-Disk					
Diskette drive DVD Ultrabay 2000 Disk	DVD-ROM / 8X-3.3 One modular bay for	3X° speed / boo or interchangea 9.5mm, S.M.A.F	table / rem ble device R.T. / remo	novable es/ Ultr ovable a	SB-based diskette dr from Ultrabay 2000 abay Plus-compatible and upgradable / 9.5m abay 2000	e/12.7 mn	n high ay /		s IBM Acro apid F ideo V	bat Rea Restore¹ VinDVD	™ PC (DVD	models)		
Display	Some: 15.0" (381m	nm) XGA (1Ò24 :	k768) ŤFT	color /	r / Active Matrix / 150 Active Matrix / 150 ni ne hand (two latches)			NortorPC-DoThink	octor™ Pad U	tilities		ŕ		
	Some: ATI® Mobilit Some: ATI Mobilit External monitor su	y RADEON 75	00 / AGP 4	4X / 32I	IB DDR-SDRAM MB DDR-SDRAM or / up to 1600x1200 at	85Hz/D		IBM UDownloIBM D	adabl	le	CIOLIM'S	•		
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Access IB TrackPoint® pointin UltraNav™ multi-po	M button / palm ig device, "Pres binting system /	rest / pito s-to-Selectouch pac	ch: 19m ct," Inte d below	m; stroke: 2.7mm (st rnet Scroll Bar ¹³ , mag keyboard / Tap Zone	d-size ke Inifying gl	ys) lass	SoftwaSystemClient securion	are De m Mig Secui ity chip	elivery A ration A rity Soft o)	ssistar ware (f	nt		
Dimensions ³ Approximate weight ² Case material Battery - type Battery - life ¹⁰	nensions ³ 14.1" models (WxDxH): 12.3" x 10" x 1.5"; 313mm x 254mm x 38.9mm 15.0" models (WxDxH): 13" x 10.5" x 1.6"; 329mm x 267.5mm x 40.5mm proximate weight ² with optical drive and battery: 14.1" models: 6.0 lb (2.8kg); 15.0": 6.7 lb (3.1kg) se material Color: Black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic tery - type Lithium Ion 8-cell / intelligent / supports unique 2nd battery in Ultrabay 2000									- License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Architecture PC Card Std slots Ports	Low Pin Count (LP PCI1510 CardBus LPC bus 33MHz (s One Type I, one Ty	I/O Controller C) interface, US controller, TSB/ ecurity chip; PO pe II, or one Ty	Hub (ATA SB, Firmw ISAB21 13 S87392 St pe III / Ca	A-100 E vare Hul 394 (son uper I/O rdBus 3	Hub (MCH-M) / IDE, PCI bus, etherne b) / PCI bus 2.2 32-bit, ne), Mini PCI, external for diskette, parallel, s2-bit / PCMCIA 2.1 / (DB-15) / infrared (4M	, 33MHz (expansio infrared) integrate	on)/	Universal 72 watt AC adapter Asset ID (system-specific info in accessed over network)						
Video out IEEE 1394 Wireless antenna Mini PCI Wireless upg ³⁶ CDC Modem Ethernet	RJ-11 (modem) / R S-video out port (T Some: IEEE 1394 UltraConnect™ Ant One Mini PCI type Wireless upgradab	RJ-45 (ethernet) V out) / one ind (FireWire) port enna built into t III slot (Commu le with wireless ons Daughter Co	/ no keyb ustry stan / 4-pin cor ne display nications Mini PCI o ard (CDC) m in CDC	dard or dard connector cover for Bay) / coptions socket / Agere	mouse or serial port nnector or optimal wireless sig sustomer upgradable (used by modem) / no chipset	ınal recep	otion	PC 200 ACPI 1. CIM and IBM Rap proted Internat 24 hour	1 and 0b and d DMI pid Re ct soft ional \ x 7 da	PXE 2.0 d 2.0-co 2.0-com estore P ware im Warrant	D-comp mpliant opliant C avai age ar y Serv free ha	lable to nd data ice ¹⁷ ardware		
Audio support Security	Soft audio / ICH AC stereo speakers / 1 microphone input ja	C97 controller / watt / volume ack (3.5 mm) / I	DirectSou up, down, neadphon	ınd® sur mute b e jack (oport / AD1891A AC9 uttons / internal mic / 3.5 mm) / no line in ja sor password / securi	ck		Service Service		,		30L9188		
	authentication / loc	ecurity Subsystal file encryption	stem 2.0 ³³ n / enhand	3 / hardv ces VPI	vare key storage / mu N security¹6 / TCG-co	lti-factor mpliant		Service		,		30L9195		
Limited warranty ¹²		· · · · · ·			ervice upgrades ²² ava			Servicel		•		30L9194		
256 MB PC2100 E 512 MB PC2100 E Ultralight 8X Max CD-RW/DVD Con 24X-10X CD-RON Second HDD Ada	DDR-SDRAM CL2.5 DDR-SDRAM CL2.5 DDR-SDRAM CL2.5 DVD Ultrabay 2000 nbo IV Ultrabay 200 M Ultrabay 2000 Driv pter for Ultrabay 200	SOD 10K0030 SOD 10K0032 22P9102 0 22P6991 ve 05K9233 00 08K6068	Ultraba ThinkF IBM U 40GB GemP ThinkF	ay 2000 Pad Mul SB Key HS Har C400 S Pad Mor	2/R40 Series Li-Ion Ba Li-Ion battery tiple Battery Charger board with UltraNav d Disk 9.5mm (5400 r mart Card Reader/Winitor Stand 2001	02h II 22F 31F pm) 08h riter 31F 22F	K6646 P9040 P8950 K9816 P8901 P5265	Service Service Service Service	Pac 2 Pac 3	yr P&L yr P&L	P/U D	30L9196 epot 30L9191 epot 30L9192 epot		
ThinkPad Remova IBM USB Portable IBM USB 2.0 Port IBM USB Serial P. Optical 3-Button T IBM iLV200 Value IBM ThinkPad Ult IBM ThinkPad Ult	able CD-RW Drive arallel Adapter ravel Wheel Mouse Data/Video Project rabay Plus Carrier rabay Plus c500 Cra	08K9603 05K9276 22P5297 22P5298 31P7410 or 0038A03 22P5737 adle 22P5738	IBM 11 IBM 11 IBM 11 ITHINKE ITHINKE ITHINKE ITHINKE ITHINKE IBM 10 IBM 0	1a/b/g V 1a/b/g V Pad 72V Pad 72V Pad Por Pad Min GB Micr ptical 3-	odrive™ with PC Card Button Travel Wheel M	opter 31F apter 31F 02F pter 22F 74F 287 d 07f Mouse 31F	P9701 P9101 K6699 P9010 P6733 7810U N5574 P7410	wame Post-wa agreem ibm.e	ervice com/s omxed arranty ents a com/s	Pac opt services u.pdf / annual t services	ions at /its/us/ maint	69P9197 source/		
i ninkPad Ultraba	y Plus Numeric Key _l	pad 22P7330	Otner	options	at ibm.com/pc/us/ac	cessorie	S	masp	spleu	.pdf				

Type-model Proce		hics Disk ory GB ⁸ Optical	Mini PCI Comm Bay wireless	CDC	Ethernet IEEE on 1394 Security Avail planar port chip Preload date
2896-J3U Pentiur 2896-N2U Pentiur 2896-N3U Pentiur 2896-N4U Pentiur 2896-Q3U Pentiur 2896-Q4U Pentiur 2896-P2U Pentiur 2896-P3U Pentiur	1° 4-M 2.2 256MB 14.1" XGA 32N 14-M 2.2 256MB 14.1" XGA 32N 14-M 2.2 256MB 14.1" XGA 32N 14-M 2.4 256MB 14.1" XGA 32N 14-M 2.4 256MB 14.1" XGA 32N 14-M 2.4 256MB 14.1" XGA 32N 14-M 2.4 256MB 15.0" SXGA+32N 14-M 2.4 256MB 15.0" SXGA+32N 14-M 2.4 256MB 15.0" SXGA+32N 14-M 2.4 256MB 15.0" XGA	MB 30GB CD MB 40GB Combo MB 60GB Combo MB 30GB CD MB 40GB Combo MB 60GB Combo MB 60GB Combo MB 60GB Combo MB 30GB CD MB 30GB CD MB 30GB CD MB 40GB Combo	Open; wireless upg 11a/b Wi-Fi ²⁷ Open; wireless upg Open; wireless upg	Modem Modem Modem Modem Modem Modem Modem Modem Modem Modem	10/100 1394 XP Pro Oct 2003 10/100 1394 Yes XP Pro Oct 2003 10/100 1394 Yes XP Pro Oct 2003 10/100 1394 Yes XP Pro Oct 2003 10/100 1394 Yes XP Pro Oct 2003 10/100 1394 Yes XP Pro Oct 2003 10/100 1394 Yes XP Pro Oct 2003 10/100 1394 Yes XP Pro Oct 2003 10/100 1394 Yes XP Pro Oct 2003 10/100 1394 Yes XP Pro Oct 2003 10/100 1394 Yes XP Pro Oct 2003 10/100 1394 Yes XP Pro Oct 2003 10/100 1394 Yes XP Pro Oct 2003 10/100 1394 Yes XP Pro Oct 2003
Proposer	Mainstream performance and feature				SOFTWARE ¹⁴
L2 cache Memory	Mobile Intel® Celeron 2.0GHz with Mobile Intel Pentium4 Processorenhanced Intel SpeedStep™ technoc Celeron: 256KB; Pentium 4-M: 512 256MB std / 1GB max ⁷ / PC2100 26 two 200-pin SO-DIMM sockets / std None standard / use optional Ultrab	M 2.2 or 2.4GHz wi blogy¹ and 400MHz KB; All: on die (at p 66MHz DDR1 (DDI I memory in one so ay™-based or USE	th : system bus : system bus rocessor speed) / ECC R-SDRAM) / non-parity cket / one socket avail B-based diskette drive	r / CL2.5 / able	Windows XP Pro models - Microsoft® Windows® XP Professional²⁰ ⇒ Disk-to-Disk Recovery (in hidden protected area) Preloaded
CD Combo Ultrabay 2000 Disk	Some: CD-ROM / 24X-10X ⁹ speed Some: DVD-ROM/CD-RW / 24X/10 One modular bay for interchangeab 30GB ⁸ , 40GB, or 60GB / 4200 rpm, 9.5mm high bay / supports 2nd disk	0X/24X/8X ²¹ speed le devices / Ultraba 9.5mm, S.M.A.R.T.	/removable from Ultra ay Plus-compatible/12. . /removable and upgra	bay 2000 7 mm high adable /	Access IBM Access Connections Adobe Acrobat Reader IBM Rapid Restore™ PC InterVideo WinDVD (combo models)
Display	Some: 14.1" (358.1mm) XGA (1024 Some: 15.0" (381.0mm) XGA (1024 Some: 15.0" (381.0mm) SXGA+ (1	4x768) TFT color / 450x1050) TFT co	Active Matrix / 150 nits lor / Active Matrix / 150		IBM RecordNOW and DLA by Veritas (combo models) Norton Antivirus (OEM edition) PC-Doctor™
•	Some: ATI® Mobility™ RADEON™ Some: ATI Mobility RADEON 750 External monitor support via analog	0 / AGP 4X / 32ME	B DDR1`(DDR-SDRAM)	 ThinkPad Utilities IBM Update Connector™.15
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Access IBM button / palm r TrackPoint® pointing device, "Press UltraNav™ multi-pointing system / to Illuminates the keyboard to improve	-to-Select," Interne ouch pad below ke	et Scroll Bar¹³, magnifyi yboard / Tap Zones		Downloadable IBM Director Agent Software Delivery Assistant System Migration Assistant Client Security Software (for
Dimensions ³ Approximate weight ² Case material Battery - type Battery - life ¹⁰	14.1" models (WxDxH): 12.3" x 10" > 15.0" models (WxDxH): 13" x 10.5" > with optical drive and batt: 14.1" mo Color: black; All: Acrylonitrile-Buta Lithium Ion 8-cell / intelligent / supp 14.1" and 15" XGA models: 3.8 to 4	x 1.6"; 329mm x 26 dels: 6.0 to 6.1 lb (diene-Styrene (AE orts unique 2nd bat	7.5mm x 40.5mm 2.7kg); <i>15.0":</i> 6.6 to 6.7 (S) plastic tery in Ultrabay 2000	, 0,	security chip) License (CD not included)
Architecture PC Card Std slots Ports	Intel 845MP chipset / 82845MP Me 82801DBM ICH4-M I/O Controller I- Low Pin Count (LPC) interface, USI PCI1510 CardBus controller, TSB43 LPC bus 33MHz (security chip; PC8 One Type I, one Type II, or one Typ Two USB (Version 2.0) / parallel / e: RJ-11 (modem) / RJ-45 (ethernet) /	mory Controller Hu Hub (ATA-100 EIDE B, Firmware Hub) / ABB21 1394 (some) 37392 Super I/O fo e III / CardBus 32- xternal monitor (DE	ib (MCH-M) / E, PCI bus, ethernet M/ PCI bus 2.2 32-bit, 33M, Mini PCI, external exper r diskette, parallel, infra bit / PCMCIA 2.1 / integ B-15) / infrared (4Mbps	AC, MHz (TI® ansion) / ared) grated doo	Universal 72 watt AC adapter Asset ID (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant IBM Rapid Restore PC available to protect software image and data International Warranty Service ¹⁷
Video out IEEE 1394 Wireless antenna Mini PCI	S-video out port (TV out) / one 4-pin IEEE 1394 (FireWire) port / 4-pin co UltraConnect™ Antenna built into the One Mini PCI type III slot (Commun	n industry standard onnector e display cover for c	connector optimal wireless signal r	eception	24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)
Wireless upg ³⁶ 11a/b Wi-Fi ²⁷ CDC	Some: wireless upgradable with wir Some: 11a/b Wi-Fi ²⁷ wireless ⁴ , Mini One Communications Daughter Car	eless Mini PČI optid PCI, Atheros™ AR!	ons 5001X chipset	cessible	ServicePac®,22 1yr IOR 9x5 NBD 30L9188 ServicePac 2 yr IOR 9x5 NBD
Modem Ethernet Audio support	56K ⁶ V.90 (V.92-designed ²⁹) moder 10/100 ethernet on motherboard / Int Soft audio / ICH AC97 controller / D	n in CDC / Agere® c tel 82562EZ chip (p	hipset hysical layer)		30L9189 ServicePac 3 yr IOR 9x5 NBD 30L9195
Security	stereo speakers / 1 watt / volume up microphone input jack (3.5 mm) / he Power-on password / hard disk pas Some: IBM Embedded Security S factor authentication / local file encr	o, down, mute butte eadphone jack (3.5 sword / supervisor subsystem 2.0 ³³ / h	ons / internal mic / mm) / no line in jack password / security ke nardware key storage /	eyhole multi-	ServicePac 4 yr IOR 9x5 NBD 30L9194 ServicePac 5 yr IOR 9x5 NBD 30L9196 ServicePac 2 yr P&L P/U Depot
Limited warranty ¹²	1 year - EasyServ ^{TM,19} onsite pickup	and delivery / servi	ce upgrades ²² available	Э	30L9191 ServicePac 3 yr P&L P/U Depot
128 MB PC2100 D 256 MB PC2100 D 512 MB PC2100 D CD-RW/DVD Con Ultralight 8X Max Second HDD Ada Multi-Burner Plus ThinkPad Remova IBM USB Portable		Ultrabay 2000 Li- ThinkPad Multiple 40GB HS Hard Di 80GB HS Hard Di Cisco Aironet Wir IBM 11a/b/g Wire IBM 11a/b/g Wire	e Battery Charger II sk 9.5mm (5400 rpm) sk 9.5mm (5400 rpm) eless 802.11b Mini PC less Mini PCI Adapter less CardBus Adapter c/DC Combo Adapter	02K6646 22P9040 08K9816 09N4273	30L9192 ServicePac 4 yr P&L P/U Depot 69P9195 ServicePac 5 yr P&L P/U Depot 69P9197 Other ServicePac options at ibm.com/services/its/us/source/ wamomxeu.pdf Post-warranty annual maintenance agreements at
ThinkPad 72W AC		Other options at il	bm.com/pc/us/access	ories	maspspleu.pdf

Type-model Proce		Graphics Disk memory GB [®] Optical	Mini PCI Comm Bay wireless E	CDC Ether modem/ on Bluetooth™ plan	ar port Preload business date
2897-23U Pentiur 2897-34U Pentiur 2897-55U Pentiur 2897-GWU Pentiur 2897-93U Pentiur 2897-B4U Pentiur 2897-GAU Pentiur 2897-GAU Pentiur 2897-83U Pentiur		16MB 20G Combo * 32MB 40G Combo * 32MB 40G Combo * 32MB 40G Combo * +32MB 60G Combo * 32MB 40G Combo * 32MB 40G Combo * 432MB 60G Combo * 16MB 20G Combo *	Intel 11b Wi-Fi Open; wireless upg Intel 11b Wi-Fi 11a/b Wi-Fi ²⁷ Intel 11b Wi-Fi Intel 11b Wi-Fi Intel 11b Wi-Fi Intel 11b Wi-Fi Intel 11b Wi-Fi	Modem 10/1 Modem 10/1 Modem 10/1 Modem 10/1 Modem 10/1 Modem 10/1 Modem 10/1 Modem 10/1	00 1394 Yes XP Pro Yes May 2003 00 1394 Yes XP Pro Yes May 2003 00 1394 Yes XP Pro Yes May 2003 00 1394 Yes XP Pro Yes May 2003 00 1394 Yes XP Pro Yes May 2003 00 1394 Yes XP Pro Yes Oct 2003 00 1394 Yes XP Pro Yes Oct 2003 00 1394 Yes XP Pro Yes Nov 2003 00 1394 Yes XP Pro Yes Nov 2003
Positioning	Mainstream performance and				SOFTWARE ¹⁴
Processor L2 cache Memory	Intel® Pentium® M Processor enhanced Intel SpeedStep™ 1MB / on die (at processor sp 256MB std / 2GB max ⁷ / PC2 two 200-pin SO-DIMM socke	technology¹ and 400MH eed) / ECC 100 266MHz DDR1 (DI ts / std memory in one s	dz system bus DR-SDRAM) / non-p socket / one socket	available	Windows XP Pro models - Microsoft® Windows® XP Professional® ⇒ Disk-to-Disk Recovery (in hidden protected area)
Diskette drive DVD Combo Ultrabay 2000 Disk	None standard / use optional <i>Some:</i> DVD-ROM / 8X-3.3X <i>Some:</i> DVD-ROM/CD-RW / One modular bay for intercha 20GB ⁸ , 40GB , or 60GB , 4200 supports 2nd disk with options	⁹ speed / bootable / rem 24X/10X/24X/8X ²¹ spee ngeable devices / Ultral rpm, 9.5mm / removabl al HDD Adapter in Ultrab	ovable from Ultraba ed / removable from bay Plus-compatible e and upgradable / 9 ay 2000	ay 2000 I Ultrabay 2000 e /12.7 mm high 9.5mm high bay	Preloaded • Access IBM - Access Connections • Adobe Acrobat Reader • IBM Rapid Restore™ PC • IBM RecordNOW and DLA by
Display	Some: 14.1" (358.1mm) XGA Some: 15.0" (381.0mm) XGA Some: 15.0" (381.0mm) SXG	(1024x768) TFT color A+ (1400x1050) TFT co	/ Active Matrix / 150 olor / Active Matrix /	nits 150 nits	Veritas (combo models) InterVideo WinDVD (Combo, DVD) Norton AntiVirus (OEM edition)
'	Some: ATI® Mobility™ RADE Some: ATI Mobility RADEO External monitor support via a	N 7500 / AGP 4X / 32M	B DDR1 (DDR-SDF	RAM)	 PC-Doctor™ ThinkPad Utilities IBM Update Connector™.15
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Access IBM button / TrackPoint® pointing device, " UltraNav™ multi-pointing syst Illuminates the keyboard to im	Press-to-Select," Interr tem / touch pad below k prove visibility in low-li	net Scroll Bar ¹³ , mag eyboard / Tap Zone ght conditions	gnifying glass	Downloadable IBM Director Agent Software Delivery Assistant System Migration Assistant
Dimensions ³ Approximate weight ² Case material Battery - type Battery - life ¹⁰	14.1" models: 12.3" x 10.0" x with optical drive and battery: Color: Black; All: Acrylonitrile Lithium Ion 8-cell / intelligent 6.1 to 6.2 hr	<i>14.1" models:</i> 6.1 to 6.7 -Butadiene-Styrene (Al	lb; <i>15.0":</i> 6.6 to 6.7 BS) plastic	`	Client Security Software (for security chip) License (CD not included) Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Architecture PC Card Std slots Ports	Intel 855PM chipset / 82855P 82801DBM ICH4-M I/O Controlled Count (LPC) interface PCI1510 CardBus controller, LPC bus 33MHz (security chip One Type I, one Type II, or on Two USB (Version 2.0) / para RJ-11 (modem) / RJ-45 (ethe	oller Hub (ATA-100 EIDI e, USB, Firmware Hub) / TSB43AB21 1394 (some o; PC87392 Super I/O fo e Type III / CardBus 32- Illel / external monitor (I	E, PCI bus, etherne / PCI bus 2.2 32-bit, e), Mini PCI, externa r diskette, parallel, i bit / PCMCIA 2.1 / ii DB-15) / infrared (4N	33MHz (TI® al expansion) / nfrared) ntegrated door Mbps) /	Universal 72 watt AC adapter Asset ID™34 (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant
Video out IEEE 1394 Wireless antenna Mini PCI Wireless upg ³⁶ 11b Wi-Fi ³²	S-video out port (TV out) / on IEEE 1394 (FireWire) port / 4 UltraConnect™ Antenna built i One Mini PCI type III slot (Co Some: Wireless upgradable v Some: 11b Wi-Fi ³² wireless ⁴ , 802.11b, Intel 82531 c	-pin connector Into the display cover for mmunications Bay) / cu vith wireless Mini PCI op Mini PCI, Intel PRO/Wire	optimal wireless sig stomer upgradable tions	,	CIM and DMI 2.0-compliant IBM Rapid Restore PC available to protect software image and data International Warranty Service ¹⁷ 24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² via 800-IBM-SERV (426-7378)
11a/b Wi-Fi ²⁷ CDC Modem Bluetooth™ Ethernet	Some: 11a/b Wi-Fi ²⁷ wireless One Communications Daught 56K ⁶ V.90 (V.92-designed ²⁸) r None 10/100 ethernet on motherboa	er Card (CDC) socket (under in CDC / Agere®	used by modem) / no chipset		ServicePac®.22 1yr IOR 9x5 NBD 30L9188 ServicePac 2 yr IOR 9x5 NBD 30L9189 ServicePac 3 yr IOR 9x5 NBD
Audio support	Soft audio / ICH AC97 contro stereo speakers / 1 watt / volu microphone input jack (3.5 m	ller / DirectSound® supp ume up, down, mute bu	oort / AD1891Á AC9 ttons / internal mic /	97 codec /	30L9195 ServicePac 4 yr IOR 9x5 NBD 30L9194
Security Security chip	Power-on password / hard dis IBM Embedded Security Su authentication / local file encr	sk password / superviso b system 2.0 33 / hardwa	or password / secur are key storage / mu	ity keyhole ulti-factor	ServicePac 5 yr IOR 9x5 NBD 30L9196 ServicePac 2 yr P&L P/U Depot
Limited warranty ¹²	1 year - EasyServ™,19 onsite				30L9191 ServicePac 3 yr P&L P/U Depot
256 MB PC2100 D 512 MB PC2100 DD 1GB PC2100 DDR CD-RW/DVD Con Second HDD Ada ThinkPad Remova IBM USB Portable IBM 4GB Microdri IBM 256 MB USB: ThinkPad 72W AC	nbo IV Ultrabay 2000 pter for Ultrabay 2000 able Diskette Drive ve™ with PC Card 2.0 Memory Key 2Adapter 22P 08K 08K 08K 09N 22P 22P	0030 ThinkPad Mini I 0032 40GB HS Hard 6091 ThinkPad R32/ 6068 Ultrabay 2000 L 9603 ThinkPad Multi 9276 IBM 11a/b/g Wi 4280 IBM 11a/b/g Wi 9025 Cisco Aironet V 6699 Ericsson® GC82	Dock Disk 9.5mm (5400 Disk 9.5mm (5400 R40 Series Li-Ion B	rpm) 09N4273 attery 02K7052 02K6646 1I 22P9040 apter 31P9701 ni PCI 31P8301 ireless58P8782	30L9192 ServicePac 4 yr P&L P/U Depot 69P9195 ServicePac 5 yr P&L P/U Depot 69P9197 Other ServicePac options at ibm.com/services/its/us/source/ wamomxeu.pdf Post-warranty annual maintenance agreements at

date

Mar 2003

Mar 2003

Mar 2003

Mar 2003

Nov2003

02K6699

22P9010

Other options at ibm.com/pc/us/accessories

22P5265

ThinkPad Monitor Stand 2001

ibm.com/services/its/us/source/

maspspleu.pdf

30L9190

30L9197

69P9198

69P9200

69P9199

69P9201

Type-model Pro	Speed ocessor GHz Memory	Disk Screen GB ⁸	Ontical	Mini PCI Comm Bay wireless	CDC	Ethernet on planar	1394	rity	warra	ited Wo	Global	(G) ´Avai
1834-4EU Celeror 1834-5BU Celeror 1834-4AU Celeror 1834-56U Celeror 1834-NEU Pentiur 1834-C4U Pentiur	n® M 1.3 128MB n M 1.3 128MB n M 1.3 256MB	14.1" XGA 20GE 15.0" XGA 20GE 14.1" XGA 30GE 15.0" XGA 30GE 14.1" XGA 30GE 14.1" XGA 30GE	B CD B Combo B Combo B CD B CD	None None None None * Intel 11b/g³² * Intel 11b/g * Intel 11b/g	Modem Modem Modem Modem Modem Modem	10/100 10/100	No No No No No No	No XI No XI No XI No XI No XI	P Home P Home P Pro P Pro P Home P Home	1 yr 1 yr 1 yr 1 yr 1 yr 1 yr 1 yr	E A E S	Apr 2004 Apr 2004 Apr 2004 Apr 2004 July 2004 July 2004 July 2004
Positioning Processor L2 cache Memory	Mainstream performar Intel® Celeron M Proc Intel Pentium M Proc 2MB L2 cache) with en Celeron M: 512KB; Pe 128MB or 256MB std speed to 266MHz) / no two 200-pin SO-DIMM	essor 1.3GHz wi essor 705 (1.5GH hanced Intel Spe entium M 705:1M '2GB max ⁷ / PC2 on-parity / CL2.5	th 400MHz Iz with 1M eedStep™ B ; <i>Pentiun</i> 2700 333M	system bus or B L2 cache) or technology ¹ and <i>m M 715:</i> 2 MB ; Hz DDR 1 (mer	d 400MH: All: ECC nory con	z system ; troller lim	bus	- Mic Hor Disl (in h	Sows XP Forosoft® Wine Edition k-to-Disk nidden pro	indows 1 ²⁰ Recove tected	nodels s® XP ery area)	3
Diskette drive CD Combo Ultrabay Enhanced Disk	None standard / use o Some: CD-ROM / 24) Some: DVD-ROM/GI I None / no support for re 20GB ⁸ or 30GB (4200 9.5mm high bay / IBM Some: 14.1" (358.1m Some: 15.0" (381.0m	(-10Xº speed / fix -RW / 24X/24X/2 emovable Ultraba rpm), 9.5mm high Hard Disk Drive m) XGA (1024x7 m) XGA (1024x7	ted, not rer 24X/8X ²¹ sp y™ options 1 / removab Shock Abs 68) TFT co 68) TFT co	movable / 12.7 r peed / fixed, not le and upgradal sorber lor / Active Mat lor / Active Mat	removal	nits	mm	- Mic Pro Disl (in h Prelo Acc	rosoft Wir fessional ² k-to-Disk nidden pro aded (all) ess IBM ess Conn I Rescue	ndows in the second sections	XP ery area)	₇ TΜ
Graphics Graphics external Keyboard TrackPoint® Touch pad ThinkLight™ Dimensions³ Weight² Case material	Integrated Intel Extreuses main memory (up External monitor supposed 187-key / Access IBM by TrackPoint® pointing do No UltraNav™ multi-polluminates the keyboar 14.1" models (WxDxH, 15.0" models (WxDxH, with optical drive and by Color: black; All: Acr	o to 64MB) / 200M ort via analog DB- utton / palm rest evice, "Press-to- inting system red to improve vis i: 12.4" x 10.2" x 1 i: 13.1" x 10.6" x 1 attery: 14.1" mod /lonitrile-Butadie	2 / in 855G //Hz 15 connec / pitch: 19r Select," Int ibility in low .35-1.46"; .47-1.58"; els: 6.0 lb (ine-Styrene	M GMCH / tor / up to 1600x mm; stroke: 2.7 ernet Scroll Bai v-light condition 314mm x 260m 332mm x 269m 2.7kg); 15.0" mc e (ABS) plastic	mm (std- 13, magn s m x 34-3 m x 37-4	size key: ifying gla 7mm 0mm	s) ss	IBM Acc (cor) Inte Nor PC- Thir Add IBM Dowr IBM Soft	M RecordNess power Modes Powe	NOW a ered by els) inDVD irus (O lities er Connec e (all) Agent ivery A	nd Driv Sonic (comb EM ed ctor™.15	re Letter products o models ition)
Battery - type Battery - life¹¹0 Architecture Port replicator Docking station	Lithium Ion 6-cell / inte Celeron M models: up Optional High Capacit Intel 855GM chipset / 82801DBM ICH4-M I/C Low Pin Count [LPC] ir PCI bus 2.2 32-bit, 33M LPC bus 33MHz (PC8) No port replicator supp No docking station sup	to 4.0 hr; Pentiu y 9-cell: up to 6.0 82855GM Memo 0 Controller Hub (tterface, USB) / MHz (TI® PCI1510 392 Super I/O fo ort	m M mode hr ry Controll ATA-100 E	er Hub (MCH-N IDE, PCI bus, e	thernet M	ЛАС,		System Migration Assistant License (CD not included) Lotus® SmartSuite® Millennium at Lotus Notes® Stand-alone Client ThinkPad notebooks implement IB ThinkVantage™ technologies and design; visit ibm.com/thinkvantage				
Video out IEEE 1394 Wireless antenna Mini PCI Intel 11b/g³² CDC Modem Ethernet Audio support Security Security chip	One Type I, one Type Two USB (Version 2.0 RJ-11 (modem) / RJ-4 None None Some (Celeron models Some (Pentium models Some (Pentium): one Some: 11b/g wireless' One Communications 56K° V.90 (V.92-desig) 10/100 ethernet on pla Soft audio / ICH AC97 mono speaker / 1 watt microphone input jack Power-on password / None	il, or one Type III) / parallel / exter 5 (ethernet) / no b: none / can upg 5: UltraConnect 1): no Mini PCI sl Mini PCI sl Mini PCI, Intel P Daughter Card (Ched ²⁹) modem in Char / Intel 82562E controller / Direc / volume up, dow (3.5 mm) / headg	grade to wi M Antenna ot (Commu mmunicati BO/Wirele DC) socke CDC / Cone Z chipset (tSound® si n, mute bu bhone jack	r (DB-15) / or mouse or serior reless via option built into the dis unications Bay) / not c ss 2200BG, Inte t (used by mode exant® chipset physical layer) / upport / AD 198 uttons / no interr (3.5 mm) / no li	al or infra nal PC Ca play cove ustomer el 82532 c em) / not Wake or I B AC97 nal micro ne in jacl	ards er upgradal chipset accessib	ole le	0 /				
Limited warranty ¹² 128 MB PC2700 E 256 MB PC2700 E 512 MB PC2700 E 1GB PC2700 DDI IBM 4GB Microdri IBM USB Portable IBM USB 2.0 Corr IBM USB 2.0 Porta	nbo Drive able Multi-Burner Drive able 40GB Hard Disk nory Key 256MB nory Key 512MB tor	D 31P9828 T4 D 31P9830 T4 D 31P9832 Th 31P9834 Tra 09N4280 Ke 05K9276 40 73P4515 600 22P9163 800 22P7196 IBN 22P9230 Th 0039A04 IBN	D/R50 Seri D/R50 Seri D/R50 High nkPad Mu cckPoint Ca GB HS Har GB HS Har GB HS Har M 11a/b/g V inkPad Cal nkPad 72V M USB Tra	ourier service es Li-Ion Batter n Capacity Li-Ion ltiple Battery Chap Collection MicroSaver® Ser d Disk 9.5mm (I d Disk 9.5mm	n Batt 9-cate arger II curity Cal 5400 rpm 5400 rpm 5400 rpm us Adapt ather o Adapte ith UltraN	cell 08K 22P 73P ole 73P i) 08K i) 73P i) 09N er 31P 73P 22P Nav 31P	8214 8197 9040 2698 2582 9816 3357 4273 9101 3600 9010 9490	Service Servic	cePac 4 y cePac 5 y cePac 2 y cePac 3 y cePac 4 y cePac 5 y warranty a ements at m.com/seaspspleu.p	r IOR 9 r P&L r P&L r P&L I r P&L I annual	P/U De P/U De P/U De P/U De P/U De mainte	30L9194 D 30L9196 epot 30L9197 epot 30L9192 epot 69P9197 pot 69P9197 enance

						r ersonar dystems riererence (r erier)
Type-model Proces	Speed Graphics		Mini PCI Comm Bay wireless	CDC modem	Ethernet on	IEEE Workhorse (W) 1394 Security Global (G) Avail port chip Preload Entry (E) date
1830-46U Pentiur 1830-48U Pentiur 1830-56U Pentiur 1830-6FU Pentiur 1830-7DU Pentiur	m [®] M 1.4 256MB 14.1" XGA 7500 m M 1.4 256MB 14.1" XGA 7500 m M 1.4 256MB 14.1" XGA 7500	30G CD 30G DVD 30G Combo ÷ 40G Combo ÷ 40G Combo	Open; wireless upg ³⁶ Open; wireless upg *Intel 11b Wi-Fi ³² *Intel 11b Wi-Fi 11a/b/g Wi-Fi ³²	Modem Modem Modem Modem Modem	10/100 10/100 Gigabit Gigabit Gigabit	Yes XP Pro W Oct 2003 Yes XP Pro W G Oct 2003 1394 Yes XP Pro W G Oct 2003 1394 Yes XP Pro W G Oct 2003 1394 Yes XP Pro W G Oct 2003 1394 Yes XP Pro Oct 2003
Positioning Processor L2 cache Memory	Mainstream performance and feature Intel® Pentium® M Processor 1.4 or enhanced Intel SpeedStep™ techno 1MB / on die (at processor speed) / E 256MB std / 2GB max² / PC2700 33 two 200-pin SO-DIMM sockets / std	1.5GHz with logy ¹ and 400M ECC 3MHz DDR-SE	// //IHz system bus DRAM / non-parity / CL		-	SOFTWARE ¹⁴ Windows XP Pro models - Microsoft® Windows® XP Professional ²⁰ \$\times \text{Disk-to-Disk Recovery}
Diskette drive CD DVD Combo Ultrabay Enhanced Disk	None standard / use optional USB-b Some: CD-ROM / 24X-10X ⁹ speed Some: DVD-ROM / 8X-3.3X ⁹ speed Some: DVD-ROM/CD-RW / 24X/24 One modular bay for interchangeable 30GB ⁸ (4200 rpm) or 40GB (4200 rpm 9.5mm high bay / supports 2nd disk v IBM Hard Disk Drive Shock Absorb: 14.1" (358.1mm) XGA (1024 Some: 15.0" (381.0mm) XGA (1024 Some: 15.0" (381.0mm) XGA+ (14	eed Renhan Ahigh Aligh	(in hidden protected area) Preloaded Access IBM Access Connections Adobe Acrobat Reader IBM Rapid Restore™ Ultra IBM RecordNOW and IBM Drive Letter Access (combo models) InterVideo WinDVD (combo, DVD) Norton AntiVirus (OEM edition) PC-Doctor™			
•	FlexView display with wide v switching (IPS) technology Some: ATI® Mobility™ RADEON™ Some: ATI Mobility RADEON 9000 External monitor support via analog I	7500 / AGP 42 0 / AGP 4X / 32	X / 32MB DDR-SDRAN 2MB DDR-SDRAM	Л		 ThinkPad Utilities IBM Update Connector^{TM,15} Downloadable IBM Director Agent Software Delivery Assistant
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Access IBM button / palm ro TrackPoint® pointing device, "Press- UltraNav™ multi-pointing system / to Illuminates the keyboard to improve	est / pitch: 19m to-Select," Inte uch pad below	nm; stroke: 2.7mm (std ernet Scroll Bar ¹³ , magr keyboard / Tap Zones	-size key	ys) ass	 System Migration Assistant Client Security Software (for security chip) License (CD not included) Lotus® SmartSuite® Millennium and
Dimensions ³ Approximate weight ⁴ Case material Battery - type Battery - life ¹⁰	14.1" models (WxDxH): 12.4" x 10.2" 15.0" models (WxDxH): 13.1" x 10.6" with optical drive and battery: 46U/4& Color: black; All: Acrylonitrile-Buta Lithium Ion 6-cell / intelligent / suppo Model 7DU with SXGA+: up to 4.0 h	x 1.47-1.58"; 3 BU: 5.7 lb (2.6kg diene-Styrene orts unique 2nd	332mm x 269mm x 37-4 g); <i>56U:</i> 6.0 lb; <i>6FU/7D</i> 0 (ABS) plastic battery in Ultrabay Enha	10mm <i>U:</i> 6.6 lb anced	. 0,	Lotus Notes® Stand-alone Client
Architecture PC Card Std slots Ports	Intel 855PM chipset / 82855PM Mem 82801DBM ICH4-M I/O Controller Hu Low Pin Count [LPC] interface, USB, PCI4520A CardBus and 1394 contro (security chip; PC87392 Super I/O fo One Type I, one Type II, or one Type Two USB (Version 2.0) / parallel / ex RJ-11 (modem) / RJ-45 (ethernet) /	ub (ATA-100 EI [Bluetooth]) / F Iller, Mini PCI, e diskette, paral e III / CardBus ternal monitor	DE, PCI bus, ethernet I PCI bus 2.2 32-bit, 33M external expansion) / LP IlleI, infrared, [docking-b 32-bit/PCMCIA 2.1/i (DB-15) / infrared (4M)	Hz (TI® PC bus 30 ased po ntegrate	rts]) d door	
Video out IEEE 1394 Wireless antenna Mini PCI Wireless upg ³⁶ 11b Wi-Fi ³² 11a/b/g Wi-Fi ³² CDC Modem Bluetooth Ethernet	S-video out port (TV out) / one 4-pin Some: IEEE 1394 (FireWire) port / 4 UltraConnect™ Antenna built into the One Mini PCI type III slot (Communi Some: wireless upgradable with wire Some: 11b Wi-Fi³² wireless⁴, Mini PC Some: 11a/b/g Wi-Fi³² wireless⁴, Mini One Communications Daughter Carr 56K⁵ V.90 (V.92-designed²³) modem None Some: 10/100 ethernet on planar / In Some: Gigabit Ethernet on planar / In Soft audio / ICH AC97 controller / Di	industry stand -pin connector display cover f cations Bay) / o less Mini PCI J, Intel PRO/W i PCI, Atheros ^T I (CDC) socket in CDC / Agere tel 82562EZ ch ttel 82540EP c	ard connector 7/1394a-2000 standard for optimal wireless sign customer upgradable poptions fireless 2100, Intel 8253 MAR5001X+ chipset (used by modem) / not chipset (physical layer) / hipset (MAC/PHY) / Wa	nal recep 31 chipse accessil Wake or	tion i	Universal 72 watt AC adapter Asset ID™.34 (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant BM ImageUltra™ Services available BM Rapid Restore Ultra available to protect software image and data international Warranty Service¹² 24 hour x 7 day¹8 toll-free warranty support during the warranty¹² via 800-IBM-SERV (426-7378)
Security Security chip	stereo speakers / 1 watt / volume up microphone input jack (3.5 mm) / he Power-on password / hard disk pass IBM Embedded Security Subsyste authentication / local file encryption	, down, mute b adphone jack (sword / supervi em 2.0 33 / hardv	outtons / internal microp (3.5 mm) / no line in jac isor password / securit ware key storage / muli	ohone / ck y keyhol ti-factor	e	ServicePac ^{®, 22} 2 yr IOR 9x5 NBD 30L9190 ServicePac 3 yr IOR 9x5 NBD 30L9197 ServicePac 4 yr IOR 9x5 NBD
256MB PC2700 I 512MB PC2700 D 1GB PC2700 DD Second HDD Ada ThinkPad DVD-R CD-RW/DVD Cor Multi-Burner Ultra IBM USB Portabli IBM USB 2.0 Port ThinkPad 72W AG	3 years/1 yr battery - EasyServ ^{TM,19} of DDR-SDRAM CL2.5 SOD 31P9828 DDR-SDRAM CL2.5 SOD 31P9830 DDR-SDRAM CL2.5 SOD 31P9832 R-SDRAM CL2.5 SOD 31P9834 depter for Ultrabay Slim OM Ultrabay Slim Drive 73P3270 mbo Ultrabay Enhanced Drive 73P3282	T40/R50 Seri T40/R50 Seri T40/R50 Higl Ultrabay Slim 30GB Hard D 40GB HS Har 80GB HS Har Intel PRO/Wi IBM 11a/b/g V	nd delivery / service up- ies Li-Ion Battery 6-cell h Capacity Li-Ion Batt 9 n Li-Polymer Battery 3- isk 9.5mm (4200 rpm) rd Disk 9.5mm (5400 rp rd Disk 9.5mm (5400 rp reless 2200BG Mini PC Wireless Mini PCI Adap Wireless CardBus Adapt rt Replicator II ni Dock	grades ²² 08k	(8214 (8197 (8190)4268 (9816)4273 (2801 (29701 (29101)	69P9198 ServicePac 5 yr IOR 9x5 NBD 69P9200 ServicePac 4 yr P&L P/U Depot 69P9199 ServicePac 5 yr P&L P/U Depot 69P9201 Other ServicePac options at ibm.com/services/its/us/source/ wamomxeu.pdf Post-warranty annual maintenance agreements at ibm.com/services/its/us/source/ maspspleu.pdf

	Speed	Gra	aphics		Mini PCI Comm Bay	CDC modem/	Etherne on	t IEEE 1394	Batte Sec cel	ery \	Workhors			
Type-model Proces 1829-6YU Pentium				. •	wireless Open; wireless upg³	Bluetooth [™] 6 Modem	•	•	•	warrant 1 year	y Entry No Jan 2			
1829-7ZU Pentiun	nM 1.7 512MB 1	5.0" SXGA+ 9	9000 60GB	Combo	Open; wireless upg k <i>Pad R50 systems h</i>	Mod/Blue	Gigabi	t 1394	Yes 9					
Positioning Processor	Mainstream perfo				ystem				SC	OFTWAR	E ¹⁴			
	enhanced Intel S	peedStep™ te	chnology ¹ a		Hz system bus			Windows XP Pro models						
L2 cache Memory		max7 / PC27 0	00 333MHz		DR-SDRAM) / non-p socket / one socket		2.5/	- Microsoft® Windows® XP Professional ²⁰ Disk-to-Disk Recovery						
Diskette drive Combo Ultrabay Enhanced Disk	One modular bay 40GB ⁸ (4200 rpm 9.5mm high bay /	W / 24X/24X/2 for interchang) or 60GB (420 supports 2nd	24X/8X ²¹ sp jeable devic 00 rpm), 9.5 disk with op	eed / rem es / Ultrat mm high , tional 'Se	rive ovable from Ultraba ovay Slim-compatible removable and upg cond HDD Adapter fo Protection System	/ 12.7 mm ł radable / or Ultrabay	nigh Slim'/	Preload Acces Acces Adob	ded ss IBM ss Conn e Acroba	tected ar ections at Reade estore™ U	r.			
Display	Some: 15.0" (38 FlexView	1.0mm) SXG /	À + (1400x1́(vide viewing)50) TFT	or / Active Matrix / 200 color / Active Matrix ad high density using	/ 200 nits /		IBM FLetteInter\Norto	RecordN r Access /ideo Wi on AntiVi	IOW and	IBM Driv			
·	Some: ATI Mob	ility RADEON	I 9000 / AG	P 4X / 32	/ 32MB DDR1 (DDR MB DDR1 (DDR-SD r/up to 1600x1200 a	RAM)	C2B	ThinkIBM U		ities connecto	г тм,15			
Keyboard TrackPoint® Touch pad ThinkLight™	TrackPoint®point UltraNav™ multi- Illuminates the ke	ting device, "P pointing syste eyboard to imp	ress-to-Sel m / touch pa prove visibili	ect," Inter ad below ty in low-l		gnifying gľa	s) iss	IBM ISoftwSystem	em Migra	Agent very Assi ition Assi y Softwa	stant			
Dimensions ³ Approximate weight ⁴ Case material Battery - type Battery - life ¹⁰	Color: black; Al	and battery: <i>6</i> I: Acrylonitrile- 9-cell / intelligo	<i>YU:</i> 6.6 lb (3 -Butadiene- ent / suppor	3.0kg); <i>72</i> Styrene (ts unique	<i>'U/:</i> 6.8 lb (3.1kg) ABS) plastic 2nd battery in Ultraba	ay Enhance		secur Licens Lotus	rity chip) e (CD no ® Smart	ot include Suite® Mi Stand-al	d) llennium			
PC Card Std slots Ports	Low Pin Count [L PCI4520A CardB (security chip; PC One Type I, one Two USB (Version	-M I/O Control PC] interface, lus and 1394 c 87392 Super I Type II, or one on 2.0) / paralle	ler Hub (ATA USB, [Bluet controller, Mi I/O for diske e Type III / C el / external	A-100 EIE ooth]) / Poni PCI, ex tte, parall cardBus 3 monitor (lub (MCH-M) / DE, PCI bus, etherne: CI bus 2.2 32-bit, 33I tternal expansion) / L el, infrared, [docking: 12-bit / PCMCIA 2.1 / DB-15) / infrared (4I mouse or serial port	MHz (TI® .PC bus 33 -based por / integrated Mbps) /	ts])							
Video out IEEE 1394 Wireless antenna Mini PCI Wireless upg ³⁶ CDC Modem Bluetooth Ethernet	One Mini PCI typ Wireless upgrada One Communica 56K ⁶ V.90 (V.92-c Some: Bluetooth Intel PRO/1000 G	Vire) port / 4-p ntenna built in e III slot (Com able with wirele tions Daughte designed ²⁹) mo wireless techr	in connecto to the displa munication ess Mini PCI r Card (CDC odem in CDC nology / in C	r/1394a y cover fo s Bay) / co options c) socket (c) / Agere DC (with	-2000 standard or optimal wireless sig ustomer upgradable (used by modem) / no ochipset	ot accessib	le	chip PC 200 ACPI 1 CIM an IBM Im	ecific infetwork) ompliant oliant	able				
Audio support Security Security chip	stereo speakers microphone inpu Power-on passw IBM Embedded	/ 1 watt / volun t jack (3.5 mm ord / hard disk Security Sub	ne up, down) / headpho (password / system 2.0	ı, mute bu ne jack (3 supervis 33 / hardw	port / AD1981B AC9 uttons / internal micro 3.5 mm) / no line in ja or password / secur are key storage / mu	ophone / ack ity keyhole ılti-factor	:	prote Interna 24 hou supp 800-l	ect softw tional W r x 7 day ort durin IBM-SEF	are imag arranty S 18 toll-fre 1g the wa RV (426-7	e and da Service ¹⁷ e warran rranty ¹² v 7378)	ita nty via		
Limited warranty ¹²					I security ¹⁶ / TCG-co rvice upgrades ²² ava					1yr IOR	30L9 ⁻			
128 MB PC2700 D 256 MB PC2700 D 512 MB PC2700 DDI Second HDD Ada ThinkPad DVD-Ri CD-RW/DVD Con Multi-Burner Plus IBM 128 MB USB 2 IBM 256 MB USB 2 IBM 4GB Microdri IBM USB 2.0 Porta IBM USB 2.0 Porta IBM USB 2.0 Porta IBM USB Serial P IBM M400 Project IBM C400 Project IBM C400 Project IBM C400 Project	DDR-SDRAM CL2 DDR-SDRAM CL2 DDR-SDRAM CL2 DDR-SDRAM CL2.5: pter for Ultrabay Sim nbo Ultrabay Sim nbo Ultrabay Enhance 2.0 Memory Key 2.0 Memory Key we™ with PC Card e Diskette Drive able Combo Drive able Multi-Burner arallel Adapter for or	5 SOD 31P9 5 P4 73P3 22P9 22P8 22P8 22P9 22P8	828 T40/F 830 T40/F 832 Ultral 834 Think 554 IBM L 270 Track 275 30GE 312 40GE 229 80GE 025 Intel I 276 IBM 1 276 IBM 1 194 Erics 163 Think 298 Think 404 Think 404 Think	R50 Serie R50 High Day Slim I Pad Mult JSB Trav (Point Ca B HS Hard B HS Hard B HS Hard I 1a/b/g W Son® GC8 Pad 72W Pad 72W Pad Port Pad Mini Pad Doc	s Li-Ion Battery 6-ce Capacity Li-Ion Batt Li-Polymer Battery 3 iple Battery Charger el Keyboard with Ultr p Collection k 9.5mm (4200 rpm) I Disk 9.5mm (5400 r eless 2200B Mini P lireless Mini PCI Ada 'ireless CardBus Ada 2 EDGE PC Card Wi AC Adapter AC/DC Combo Ada Replicator II Dock	ell 08K6 9-cell 08K6 -cell 09N4 -cell 09N4 -cell 73P2 -	3214 3197 3190 9040 9490 92698 4268 9816 4273 2801 9701 97101 3782 6699 9010	Service Service Service Service Service Service Post-wagreen	Pac 3 ylePac 5 ylePac 3 ylePac 3 ylePac 3 ylePac 5 ylePac	r IOR 9x5 r IOR 9x5 r IOR 9x5 r IOR 9x5 r P&L P/l r P&L P/l r P&L P/l annual ma	30L9 ⁻ 5 NBD 30L9 ⁻ 5 NBD 30L9 ⁻ 5 NBD 30L9 ⁻ 6 NBD 30L9 ⁻ U Depot 30L9 ⁻ U Depot 30L9 U Depot 69P9 J Depot 69P9 aintenan	195 194 196 191 192 195 197 ice		

										70	roonar	by sterrio	ricicion	00 (1 0112			
Type-model Proces	Spee		Scroon	Graphics		Ontical	Mini PCI Comm Bay wireless	CDC modem	Ethernet on	1394	Securit		orkhors Global	(G) Av			
1830-5AU Pentiun							*Intel 11b Wi-Fi ³²	Modem	planar Gigabit			XP Pro		E) da Oct 20			
	mM 1.4 educatior	256MB nal mode	15.0" SX els of the	GA+ 9000 ThinkPadı	40G (notebo	ok are a	11a/b/g Wi-Fi ³² *Intel 11b Wi-Fi available only to pul al purposes for use	Modem olic or priv		1394 or higl	Yes her) ac	credited	No	Oct 20 Oct 20			
This mo	odel for e	ducation	is for sa	le direct fro	m IBN	or thro	ugh an Authorized	Education	n Reseller								
							sale to any other or 3 36 ThinkPad R50 s	•			ed wai	rrantv)					
Positioning				and feature				, 0.100					NARE ¹	1			
Processor L2 cache Memory	Intel® Per enhance 1MB / or 256MB	entium® ed Intel S n die (at std / 2Gl	M Proces SpeedSte processo 3 max ⁷ / I	ssor 1.4Gl p™ techno r speed) / l PC2700 33	Hz with logy ¹ a ECC 3MHz	n	MHz system bus DRAM / non-parity le socket / one sock		ole	- Mid Pro Dis	crosoft ofessio sk-to-D	(P Pro m ® Windov nal ²⁰ isk Reco	nodels ws® XP overy				
Diskette drive Combo Ultrabay Enhanced Disk	te drive None standard / use optional USB-based diskette drive												(in hidden protected area) Preloaded • Access IBM • Access Connections • Adobe Acrobat Reader • IBM Rapid Restore™ Ultra				
Display	Some:	15.0" (38 FlexViev switchin one latch	B1.0mm) v display g (IPS) te n to unlate	SXGA+ (14 with wide vechnology on and oper	400x1 0 viewing n with o	050) TF g angle one han		trix / 200 n sing in plai		IBN Let Inte No PC	M Reconter Acceptage Property of the Acceptage of the Ac	ordNOW cess o WinDV ntiVirus (and IB D (OEM e	M Drive			
•	Some:	ATI Mob	ility RAI	DEON 900	0 / AG	P 4X / 3	IX / 32MB DDR-SD 22MB DDR-SDRAM tor/up to 1600x120	1	/DDC2B	• IBN		te Conn		15			
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / TrackPo UltraNav	Access oint® poir v™ multi	IBM butt ting devi -pointing	on / palm r ce, "Press- system / to	est / pi to-Sel ouch pa	itch: 19r lect," Int ad belov	mm; stroke: 2.7mm ernet Scroll Bar ¹³ , r w keyboard / Tap Zo v-light conditions	(std-size nagnifying	keys)	• So • Sys • Clic	ftware stem M	ctor Ager Delivery ligration curity So chip)	Assista Assista	ınt			
Dimensions ³ Approximateweight ² Case material Battery - type Battery - life ¹⁰	15.0" mo with opti Color: I Lithium	o <i>dels (W</i> cal drive black; <i>A</i> lon 6-ce	<i>(xDxH):</i> 1: and batto <i>II:</i> Acryloi II / intellig	3.1" x 10.6' ery: <i>5AU/5</i> nitrile-Buta ent / suppo	" x 1.47 <i>CU:</i> 6.0 diene- orts uni	7-1.58"; 0 lb (2.7l -Styrene iaue 2nd	314mm x 260mm x 332mm x 269mm x kg); 7CU: 6.6 lb (3.0 e (ABS) plastic d battery in Ultrabay to 4.7 hr; Optional S	37-40mm kg) Enhanced	ı I	License (CD not included) - Lotus® SmartSuite® Millennium ar Lotus Notes® Stand-alone Client							
Architecture PC Card Std slots Ports	82801DI Low Pin PCI4520 (security One Typ Two US	BM ICH ² Count [L OA CardE chip; P(oe I, one B (Versi	4-M I/O C LPC] inter Bus and 1 C87392 S Type II, o on 2.0) / J	ontroller Ho face, USB 394 contro Super I/O fo or one Typ parallel / ex	ub (AT , [Bluet oller, M or diske e III / C kternal	A-100 E tooth]) / ini PCI, ette, para CardBus I monito	Hub (MCH-M) / EIDE, PCI bus, ether PCI bus 2.2 32-bit, external expansion allel, infrared, [docki 5 32-bit / PCMCIA 2 r (DB-15) / infrared or mouse or serial p	33MHz (T) / LPC bu ing-based :.1 / integr (4Mbps) /	s 33MHz ports]) ated door			2 watt A					
Video out IEEE 1394 Wireless antenna Mini PCI 11b Wi-Fi ³² 11a/b/g Wi-Fi ³² CDC Modem Bluetooth Ethernet Audio support	UltraCor One Min Some: 1 Some: 1 One Cor 56K ⁶ V.S None Gigabit I Soft aud	94 (Fire nnect™ / ni PCI typ 11b Wi-F 11a/b/g V mmunica 90 (V.92- Ethernet lio / ICH	Wire) pór Antenna b De III slot ij ³² wirele: Wi-Fi ³² wii ations Dai designed on plana AC97 co	t / 4-pin co puilt into the (Communi ss ⁴ , Mini Por reless ⁴ , Mir ughter Card 1 ²⁹) modem r / Intel 825 ntroller / D	nnecto displatication CI, Inteni PCI, d (CDC in CDC 40EP frectSc	or/1394 ay cover is Bay) / el PRO/V Atheros C) socke C / Ager chipset ound® si	dard connector la-2000 standard for optimal wireless customer upgradal Vireless 2100, Intel TM AR5001X+ chips let (used by modem) re® chipset (MAC/PHY) / Wake upport / AD1981B A buttons / internal m	ble 82531 chi set / not acce on LAN® AC97 code	pset ssible	Chi PC 2 ACP CIM a IBM I IBM I pro Interi 24 ho suj	p acce 001 and 11.0b a and DN magel Rapid I otect so nationa our x 7 oport d	H (syster essed ov ad PXE 2 and 2.0-co JItra™ S Restore oftware i al Warra day¹8 to luring the SERV (4	er netwarder net	vork) pliant nt t availabl iilable to and data vice ¹⁷ varranty nty ¹² via			
Security Security chip	microph Power-c IBM Em	one inpu n passv bedded	ut jack (3. vord / har Security	5 mm) / he d disk pas: / Subsyst e	adphosword em 2.0	ne jack / super\) ³³ / harc	(3.5 mm) / no line i visor password / sed dware key storage / PN security 16 / TCG	n jaċk curity key multi-fact	hole or			^{®, 22} 2 yr 3 yr IOF		30L919			
Limited warranty ¹²							and delivery / servic	•		Servi	icePac	4 yr IOF	R 9x5 N	BD 69P919			
128 MB PC2700 E 256 MB PC2700 E 512 MB PC2700 E 1GB PC2700 DDI Second HDD Ada ThinkPad DVD-R CD-RW/DVD Cor Multi-Burner Ultra	DDR-SDF DDR-SDF R-SDRAI apter for L BOM Ultra mbo Ultra	RAM CL: RAM CL: M CL2.5 Jitrabay Ibay Slin bay Enh	2.5 SOD 2.5 SOD SOD Slim Drive anced	31P9830	T40/ Ultra Thin 30GI 40GI 80GI	'R50 Hig abay Slir kPad M B Hard I B HS Ha B HS Ha	ries Li-Ion Battery 6 gh Capacity Li-Ion E n Li-Polymer Batter ultiple Battery Char Disk 9.5mm (540 ard Disk 9.5mm (540 Ireless 2200BG Mi	Batt 9-cell ry 3-cell ger II pm) 00 rpm) 00 rpm)		Servi Servi	icePac icePac r Servi	5 yr IOF 4 yr P& 5 yr P& cePac o	L P/U [L P/U C ptions a	BD 69P920 Depot 69P919 epot 69P920			
Portable 40GB US IBM USB Portable IBM USB 2.0 Port ThinkPad 72W AC Other options at il	SB 2.0 wit e Diskette table Mul C/DC Cor	th Rapid e Drive ti-Burne mbo Ada	Restore r Drive opter	09N4255 05K9276 22P9163 22P9010	IBM IBM Thin Thin	11a/b/g 11a/b/g kPad Po	Wireless Mini PCI Wireless CardBus ort Replicator II ini Dock	Adapter Adapter	31P9701	Post- agree ib	amomx warrai ements m.con	ceu.pdf nty annu	al main	tenance			

				222	
	or GHz Memory Screen co			CDC Etherne modem/ on Bluetooth™ planar	1394Securitycells Global (G) Ávail port chip Preload Entry (E) date
1836-2PU Pentium 1836-2RU Pentium 1836-2RU Pentium 1836-2TU Pentium 1836-2TU Pentium 1836-3NU Pentium 1836-3PU Pentium 1836-3QU Pentium 1836-3RU Pentium 1836-3SU Pentium 1836-3TU Pentium 1836-3TU Pentium	 M 1.4 256MB 14.1" XGA M 1.5 256MB 14.1" XGA M 1.5 256MB 14.1" XGA M 1.5 256MB 14.1" XGA M 1.5 256MB 14.1" XGA M 1.4 256MB 15.0" XGA M 1.4 256MB 15.0" XGA M 1.5 256MB 15.0" XGA M 1.5 256MB 15.0" XGA M 1.6 256MB 15.0" XGA M 1.6 256MB 15.0" SXGA 	7500 40G Com 7500 60G Com 7500 40G Com 7500 60G Com 7500 40G DVD 7500 40G DVD 7500 40G DVD 7500 40G DVD 7500 40G Com +9000 40G Com +9000 40G Com	bo Open; wireless upg bo *Intel 11b Wi-Fi bo 11a/b/g Wi-Fi ³² bo Open; wireless upg bo *Intel 11b Wi-Fi Open; wireless upg *Intel 11b Wi-Fi Open; wireless upg *Intel 11b Wi-Fi open; wireless upg *Intel 11b Wi-Fi bo 11a/b/g Wi-Fi bo Open; wireless upg bo *Intel 11b Wi-Fi	Modem Gigabit Modem Gigabit Modem Gigabit Modem Gigabit Modem 10/100 Modem 10/100 Modem 10/100 Modem 10/100 Modem 10/100 Modem Gigabit Modem Gigabit Modem Gigabit Modem Gigabit	
	Mainstream performance an				SOFTWARE ¹⁴
L2 cache Memory Diskette drive DVD Combo Ultrabay Enhanced Disk	Intel® Pentium® M Processing Processing Step 1 MB / on die (at processors) 256MB std / 2GB max² / PC two 200-pin SO-DIMM sock None standard / use optiona Some: DVD-ROM/6X-3.3) Some: DVD-ROM/CD-RW. One modular bay for interchate 40GB® (4200 rpm) or 60GB (9.5mm high bay / supports 2)	technology¹ and peed) / ECC 2700 333MHz DD ets / std memory in USB-based disk (8° speed / bootable / 24X/24X/8X angeable devices / 4200 rpm), 9.5mm	400MHz system bus R-SDRAM / non-parity / n one socket / one socket ette drive e / removable from Ultral 21 speed / removable fro Ultrabay Slim-compatibl high / removable and up	et available bay Enhanced m Ultrabay Enhan e / 12.7 mm high gradable /	Windows XP Pro models - Microsoft® Windows® XP Professional²0 ⇒ Disk-to-Disk Recovery (in hidden protected area) Preloaded • Access IBM • Access Connections • Adobe Acrobat Reader • IBM Rapid Restore™ Ultra
Display	Some: 14.1" (358.1mm) XG Some: 15.0" (381.0mm) XG Some: 15.0" (381.0mm) XG Some: 15.0" (381.0mm) SX FlexView display with	GA (1024x768) TF GA (1024x768) TF GA+ (1400x1050)	Color / Active Matrix / 1 Color / Active Matrix / 2	50 nits 00 nits ix / 200 nits /	IBM RecordNOW and IBM Drive Letter Access (combo models) InterVideo WinDVD (combo, DVD) Norton AntiVirus (OEM edition) PC-Doctor™ ThinkPad Utilities
	Some: ATI® Mobility™ RAI Some: ATI Mobility RADE			RAM	IBM Update Connector™.15
Graphics - external	External monitor support via	analog DB-15 con	nector / up to 1600x1200		Downloadable • IBM Director Agent
TráckPoint® Touch pad ThinkLight™	87-key / Access IBM button TrackPoint® pointing device, UltraNav™ multi-pointing sy Illuminates the keyboard to i	"Press-to-Select, stem / touch pad b mprove visibility ir	" Internet Scroll Bar ¹³ , m elow keyboard / Tap Zo low-light conditions	agnifying glass nes	Software Delivery Assistant System Migration Assistant Client Security Software (for security chip)
Approximate weight ² Case material	14.1" models (WxDxH): 12.4 15.0" models (WxDxH): 13.1 with optical drive and battery Color: black; All: Acrylonitr Lithium Ion 6- or 9-cell / intel	" x 10.6" x 1.47-1.5 : <i>14.1" models:</i> 5.7 ile-Butadiene-Sty	58"; 332mm x 269mm x 3 7 to 6.2 lb; <i>15.0" models:</i> rene (ABS) plastic	37-40mm 6.6 to 6.8 lb	License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client Universal 72 watt AC adapter
Architecture PC Card Std slots Ports	6-cell models: 4.0 to 4.7 hr; Intel 855PM chipset / 82855l 82801DBM ICH4-M I/O Cont Low Pin Count [LPC] interfac PCI4520A CardBus and 139 (security chip; PC87392 Sup One Type I, one Type II, or c Two USB (Version 2.0) / par RJ-11 (modem) / RJ-45 (eth	PM Memory Contributed Hub (ATA-10) PM (ATA	oller Hub (MCH-M) / 00 EIDE, PCI bus, ethern n]) / PCI bus 2.2 32-bit, 3 'CI, external expansion', parallel, infrared, [dockin Bus 32-bit / PCMCIA 2. nitor (DB-15) / infrared (et MAC, 3MHz (TI® /LPC bus 33MHz g-based ports]) 1 / integrated door 4Mbps) /	Asset ID™.34 (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant IBM ImageUltra™ Services available IBM Rapid Restore Ultra available to protect software image and data International Warranty Service¹7
IEEE 1394 Wireless antenna Mini PCI Wireless upg ³⁶ 11b Wi-Fi ³² 11a/b/g Wi-Fi ³² CDC Modem Bluetooth Ethernet Audio support Security Security chip Limited warranty ¹² 128 MB PC2700 D	S-video out port (TV out) / oi Some: IEEE 1394 (FireWire UltraConnect™ Antenna buili One Mini PCI type III slot (C Some: wireless upgradable v Some: 11b Wi-Fi³² wireless⁴ Some: 11a/b/g Wi-Fi³² wirele One Communications Daugh 66K⁵ V.90 (V.92-designed²³) Some: Bluetooth wireless te Some: 10/100 ethernet on p Some: Gigabit Ethernet on p Soft audio / ICH AC97 contr stereo speakers / 1 watt / vo microphone input jack (3.5 r Power-on password / hard of IBM Embedded Security S authentication / local file end 1 year - EasyServ™.19 onsite) port / 4-pin conne t into the display communications Ba with wireless Mini I, Mini PCI, Intel PF ess ⁴ , Mini PCI, Atheter Card (CDC) so modem in CDC / A chnology / in CDC lanar / Intel 82540 oller / DirectSound lume up, down, m nm) / headphone j lisk password / su ubsystem 2.0 ³³ / I cryption / enhance e pickup and delive	ector / 1394a-2000 standover for optimal wireless a ay) / customer upgradab PCI options RO/Wireless 2100, Intel 8 eros™ AR5001X+ chipset (with modem) / Agere® chipset (with modem) EZ chipset (physical laye EP chipset (MAC/PHY) / d® support / AD1981B Aute buttons / internal mid ack (3.5 mm) / no line in pervisor password / secnardware key storage / rs VPN security 16 / TCG-cary / service upgrades ²² a Series Li-Ion Battery 6-cary / Series Li-Ion Battery 6-cary / service mardware / 6-cary / service service upgrades / 6-cary / service upgrades / 6-cary / service upgrades / 6-cary / service upgrades / 6-cary / service upgrades / 6-cary / service upgrades / 6-cary / service upgrades / 6-cary / service upgrades / 6-cary / service upgrades / 6-cary / service upgrades / 6-cary / service upgrades / 6-cary / service / 6-cary / service / 6-cary / service / 6-cary / service / 6-cary / service / 6-cary	signal reception le 2531 chipset st not accessible r) / Wake on LAN® Wake on LAN 097 codec / crophone / jack urity keyhole nulti-factor compliant available cell 08K8214	24 hour x 7 day ¹⁸ toll-free warranty support during the warranty ¹² ServicePac ^{®,22} 1yr IOR 9x5 NBD 30L9188 ServicePac 2 yr IOR 9x5 NBD 30L9189 ServicePac 3 yr IOR 9x5 NBD 30L9195 ServicePac 4 yr IOR 9x5 NBD 30L9194 ServicePac 5 yr IOR 9x5 NBD 30L9194 ServicePac 2 yr P&L P/U Depot 30L9191 ServicePac 3 yr P&L P/U Depot 30L9192 ServicePac 4 yr P&L P/U Depot 69P9195 ServicePac 5 yr P&L P/U Depot 69P9197 Post-warranty annual maintenance
256 MB PC2700 D 512 MB PC2700 D 1GB PC2700 DDF	DR-SDRAM CL2.5 SOD 31 DR-SDRAM CL2.5 SOD 31	P9830 T40/R50 P9832 ThinkPac P9834 Other op	High Capacity Li-Ion Ba	tt 9-cell 08K8197 287710U accessories	agreements at ibm.com/services/its/us/source/ maspspleu.pdf

			Graphics			Mini PCI	CDC	Etherne				orkhors			
Type-model Process	Speed or GHz Memory		controller memory		Optical	Comm Bay wireless	modem/ Bluetooth		1394 port	Securit chip	y Preload		G) Avai E) date		
1832-22U Pentium 1832-23U Pentium						11a/b/g Wi-Fi ³² * Intel 11b Wi-Fi ³²	Mod/Blue Mod/Blue				XP Pro XP Pro		Nov 2003 Nov 2003		
Positioning Processor	Mainstream peri Intel® Pentium® enhanced Intel S	M Process	or 1.7GH	Iz witl	h ໌ í				Wind		SOFTW				
L2 cache Memory	1MB / on die (at 512MB std / 2G	processor s B max ⁷ / PC	speed) / E 2700 33	ECC 3MHz	z DDR1 (DI	DR-SDRAM) / non- socket / one socket	-parity / CI t available	2.5/	Prof ⇔Disk	ession -to-Dis	k Recov	ery			
	CD-RW/DVD-RW Multi-Burner / writes to CD-R, CD-RW, DVD-RAM, DVD-R, DVD-RW reads CD-ROM, CD-R, CD-RW, CD-Audio, DVD-ROM, DVD-R, DVD+R, DVD+RW, DVD-RW, DVD-Video, DVD-RAM / same as optional ThinkPad Multi-Burner Ultrabay Enhanced Drive Option / removable from Ultrabay Enhanced											area)			
Ultrabay Enhanced One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high Disk 60GB8 Ultra HS (7200 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / IBM Hard Disk Drive Shock Absorber / IBM Active Protection System											Restore ¹ dNOW a ess by So WinDVD	nd IBM	Drive		
	400:1 contrast r	atio / 170-d	egree ho	rizont	al and verti	Active Matrix / 200 cal viewing angle / unlatch and open w	display us	ses	InteNorPC-	rVideo ton Ant Doctor	WinDVD iVirus (O ™				
						R1 / OpenGL® supp / up to 1600x1200 a		DC2B	IBM	Update	Jtilities e Connec	tor ^{TM,15}			
TrackPoint® Touch pad	TrackPoint®poir	nting device i-pointing sy	e, "Press- ystem / to	to-Se uch p	elect," Interi ad below k	n; stroke: 2.7mm (s net Scroll Bar¹³, ma eyboard / Tap Zon ght conditions	ıgnifying g	lass	IBMSoftSys	ware D tem Mi	or Agent Oelivery A gration A urity Soft	ssistant	1		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	(WxDxH): 13.1" with optical drive Color: black; A Lithium Ion 9-ce 5.9 hr; with optic	e and batter A//: Acrylonit II / intelliger	y: 7.1 lb (trile-Buta nt / suppo	3.2kg diene orts ur	g) Styrene (<i>F</i> nique 2nd ba	ABS) plastic attery in Ultrabay Er	nhanced		seci Licen - Lotu	urity ch se (CD us® Sma		ded) Millenn	ium and		
Architecture PC Card Std slots	Intel 855PM chip 82801DBM ICH- Low Pin Count [I PCI4520A Card (security chip; P Two Type I, two	pset / 82855 4-M I/O Cor LPC] interfa Bus and 139 C87392 Sup Type II, or	5PM Mem ntroller Hu ace, USB, 94 contro per I/O for one Type	nory C lb (AT [Blue ller, M r diske	Controller H FA-100 EID tooth]) / PC fini PCI, ex ette, paralle CardBus 32	ub (MCH-M) / E, PCI bus, etherne I bus 2.2 32-bit, 33 ternal expansion) / II, infrared, [docking 2-bit / PCMCIA 2.1	BMHz (TI® LPC bus 3 g-based po / integrate	orts])							
Ports Video out IEEE 1394	Two USB (Versi RJ-11 (modem) S-video out port None	/ RJ-45 (et	hernet) / i	no ke	yboard or r	DB-15) / infrared (4 nouse or serial por d connector	Mbps) / t		Think	Pad no	tebooks	mplem	entIBM		
Wireless antenna Mini PCI 11b Wi-Fi ³² 11a/b/g Wi-Fi ³² CDC Modem Bluetooth	UltraConnect™ / One Mini PCI ty Some: 11b Wi-F Some: 11a/b/g \ One Communica 56K° V.90 (V.92 Bluetooth wirele	pe III slot (C Fi ³² wireless Wi-Fi ³² wirel ations Daug -designed ²⁹ ss technolo	Communion of Mini PC less4, Mini PC less4, Mini ghter Card modem legy/in CC	cation CI, Inte ii PCI, II (CDI in CDI IO (wi	ns Bay) / cu el PRO/Wir , Atheros™ C) socket (i DC / Agere® ith modem)		2531 chips not access	et ible	ThinkVantage™ technologies and design; visit ibm.com/thinkvanta Universal 72 watt AC adapter Asset ID™.3⁴ (system-specific inf chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant						
Audio support Security Security chip	Soft audio / ICH stereo speakers microphone inp Power-on passy IBM Embedded	AC97 cont s / 1 watt / vout jack (3.5 word / hard d Security \$	roller / Di olume up mm) / he disk pass Subsyste	rectS , dow adpho sword em 2.0	ound® supp n, mute but one jack (3 l / superviso 0 33 / hardwa	AC/PHY) / Wake on the AC/PHY) / Wake on the AC/PHY) / Wake on the AC/PHY /	97 codec rophone / ack rity keyho ulti-factor	/ le	ENEF IBM Ir IBM P prof Intern	RGY ST nageU lapid R tect sof ational	I 2.0-com AR®-con Itra™ Ser estore U tware im Warrant	npliant vices a ltra ava age and y Servic	ilable to d data ce ¹⁷		
Limited warranty ¹² Service options	3 years/1 yr bat Service upgrade	tery - Easys	Serv ^{TM,19} o	nsite e yea	pickup and	d delivery courier se or depot repair se warranty period)	ervice		sup 800	port du -IBM-S	lay ¹⁸ toll- iring the v SERV (42	warrant 6-7378	y ¹² via)		
128 MB PC2700 D 256 MB PC2700 D 512 MB PC2700 DD 512 MB PC2700 DDF Second HDD Ada ThinkPad DVD-RC CD-RW/DVD Con Multi-Burner Plus IBM 4GB Microdri IBM USB Portable IBM USB Serial Pa IBM USB Serial Pa IBM USB 2.0 Port IBM USB 2.0 Mem IBM USB 2.0 Mem IBM MA00 Project IBM Enh Perf Wire	DR-SDRAM CL DR-SDRAM CL DR-SDRAM CL2.5 DR-SDRAM CL2.5 Deter for Ultrabay OM Ultrabay Sin Diskette Drive arallel Adapter able Multi-Burne able 40GB Hard nory Key 256MB nory Key 512MB	2.5 SOD 3 2.5 SOD 3 2.5 SOD 3 5 SOD 3 5 SOD 3 5 SOD 4 7 Ced Drive 7 d 0 0 0 2 r Drive 2 Disk 2 0	1P9828 1P9830 1P9832 1P9832 1P9834 2P4554 3P3270 3P3275 3P3312 9N4280 5K9276 2P5298 2P9163 2P7196 2P9228 2P928 2P9280 037A04	T40 T40 Ultr. Thir IBM 30C 40C 80C Inte IBM Thir Thir Thir	J/R50 Serie J/R50 High abay Slim I nkPad Mult I USB Trav BB Hard Dis BB HS Hard I PRO/Wire I 11a/b/g W nkPad 72W nkPad 72W	s Li-Ion Battery 6-c Capacity Li-Ion Ba i-Polymer Battery iple Battery Charge el Keyboard with U k 9.5mm (4200 rpn Disk 9.5mm (5400 Disk 9.5mm (5400 Disk 9.5mm (5400 Piss 2200BG Mini irreless Mini PCI Ad ireless CardBus Ad AC Adapter AC/DC Combo Ad Replicator II Dock	tt 9-cell 08 3-cell 08 9-r ll 22 1traNav 31 n) 09 0 rpm) 08 0 rpm) 09 PCI 73 dapter 31 02 dapter 22 dapter 22	K8214 K8197 K8190 P9040 P99490 N4268 K9816 N4273 P2801 P4301 P9101 K6699 P9010 P6733 7810U	Service Service Service Service Service Other ibn wa Post-v	cePac 3 cePac 4 cePac 5 cePac 5 cePac 5 cePac 5 cePac 5 cePac 5 momxemomxe	ty annual	9x5 NBI 9x5 NBI 9x5 NBI 9x5 NBI P/U De P/U De ions at ions at mainte	30L9190 D 30L9197 D 69P9198 D 69P9200 epot 69P9199 pot 69P9201		

	Speed ssor GHz Memory Screen		Mini PCI Comm Bay wireless	modem/ or Bluetooth™ plar	
1836-A5U Pentiur 1836-BAU Pentiur 1836-BBU Pentiur 1836-BCU Pentiur 1836-BDU Pentiur	mM 1.6 256MB 15.0" SX mM 1.5 256MB 15.0" SX	GA 9000 60GB DVD-RV	*Intel 11b/g Wi-Fi *Intel 11b/g Wi-Fi V 11a/b/g Wi-Fi *Intel 11b/g Wi-Fi	Modem Giga Modem 10/1 Modem Giga Mod/Blue Giga Modem 10/1	abit 1394 Yes XP Pro No Apr 2004 00 Yes XP Pro No Apr 2004 abit 1394 Yes XP Pro No Apr 2004 abit 1394 Yes XP Pro No Apr 2004
Positioning		and features; two-spindle	system		SOFTWARE ¹⁴
Processor		essor 1.5 or 1.6GHz with ep™ technology¹ and 400N	1Hz system bus		Windows XP Professional
L2 cache Memory	1MB / on die (at processe 256MB std / 2GB max ⁷ /		DDR-SDRAM) / non-pa		- Microsoft® Windows® XP Professional ²⁰ ♦ Disk-to-Disk Recovery
Diskette drive Combo DVD-RW	Some: DVD-ROM/CD-F	ional USB-based diskette c RW / 24X/24X/24X/8X ²¹ spo M Multi-Burner / removable	eed / removable from U		(in hidden protected area) Preloaded Access IBM
Ultrabay Enhanced Disk	40GB ⁸ (4200 rpm), 60GE removable and upgradab supports 2nd disk with op	rchangeable devices / Ultra 3 (4200 rpm), or 80GB (420 ole / 9.5mm high bay / otional 'Second HDD Adapt ock Absorber / IBM Activ	0 rpm) / 9.5mm high / er for Ultrabay Slim' /	12.7 mm high	 Access Connections IBM Rescue and Recovery™ IBM RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD-RW) InterVideo WinDVD (combo,
Display	Some: 15.0 " (381.0mm) Some: 15.0 " (381.0mm)) XGA (1024x768) TFT col.) XGA (1024x768) TFT col.) SXGA+ (1400x1050) TFT y with wide viewing angle a	or / Active Matrix / 200 color / Active Matrix / 2	nits 200 nits /	DVD-RW) InterVideo WinDVD Creator (DVD-RW) Norton AntiVirus (OEM edition)
Graphics external	Some: ATI Mobility RAI	RADEON™ 7500 / AGP 4X DEON 9000 / AGP 4X / 32 I via analog DB-15 connector	MB DDR1 (DDR-SDR <i>i</i>	AM) ´	 PC-Doctor™ ThinkPad Utilities Adobe Reader
Keyboard TrackPoint® Touch pad ThinkLight™	TrackPoint®pointing dev UltraNav™ multi-pointing	n / palm rest / pitch: 19mm rice, "Press-to-Select," Inte g system / touch pad below I to improve visibility in low-	ernet Scroll Bar ¹³ , magr keyboard / Tap Zones	nifying glass	 IBM Update Connector™.15 Downloadable IBM Director Agent Software Delivery Assistant
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	15.0" models (WxDxH): 1 with optical drive and bat Color: black; All: Acrylo Lithium Ion 6-cell / intellig	12.4" x 10.2" x 1.35-1.46"; 3 13.1" x 10.6" x 1.47-1.58"; 3 ttery: 14.1" models: 6.0 lb (to initrile-Butadiene-Styrene gent / supports unique 2nd with SXGA+: 4.0 hr; Others.	32mm x 269mm x 37-4 2.7kg); <i>15.0" models:</i> 6. (ABS) plastic battery in Ultrabay Enha	10mm .6 lb (3.0kg) anced	System Migration Assistant Client Security Software (for security chip) License (CD not included) Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Architecture PC Card Std slots Ports	82801DBM ICH4-M I/O C Low Pin Count [LPC] inte PCI4520A CardBus and (security chip; PC87392 S One Type I, one Type II, Two USB (Version 2.0)	855PM Memory Controller Controller Hub (ATA-100 El Prface, USB, [Bluetooth]) / F 1394 controller, Mini PCI, e Super I/O for parallel, infrar or one Type III / CardBus parallel / external monitor	DE, PCI bus, ethernet N PCI bus 2.2 32-bit, 33MI xternal expansion) / LP ed, [docking-based por 32-bit / PCMCIA 2.1 / ir (DB-15) / infrared (4MI	Hz (Ťl® PC bus 33MHz ts]) ntegrated door	ThinkPad notebooks implement IBM ThinkVantage™ technologies and design; visit ibm.com/thinkvantage Universal 72 watt AC adapter
Video out IEEE 1394 Wireless antenna Mini PCI Intel 11b/g ³² 11a/b/g Wi-Fi ³² CDC Modem Bluetooth	S-video out port (TV out) Some: IEEE 1394 (FireV UltraConnect™ Antenna One Mini PCI type III slor Some: 11b/g Wi-Fi³² wire Some: 11a/b/g Wi-Fi³² w One Communications Da 56K° V.90 (V.92-designe Some: Bluetooth wireles	(ethernet) / no keyboard or) / one 4-pin industry stand. Vire) port / 4-pin connector built into the display cover f t (Communications Bay) / c eless ⁴ , Mini PCI, Intel PRO/ irreless ⁴ , Mini PCI, Atheros ² aughter Card (CDC) socket d ²⁹) modem in CDC / Cones is technology / in CDC (With	ard connector / 1394a-2000 standard or optimal wireless sign sustomer upgradable Wireless 2200BG, Intel MAR5001X+ chipset (used by modem) / not kant® chipset modem)	nal reception 82532 chipset accessible	Asset ID™.34 (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant IBM ImageUltra™ Services available International Warranty Service¹ 24 hour x 7 day¹8 toll-free warranty support during the warranty¹²
Ethernet Audio support	Some: Gigabit Ethernet of Soft audio / ICH AC97 of stereo speakers / 1 watt	n planar / Intel 82562EZ chi on planar / Intel 82540EP ch ontroller / DirectSound® su / volume up, down, mute b	ipset (MAC/PHY) / Wak pport / AD1981B AC97 uttons / internal microp	te on LAN 7 codec / phone /	ServicePac®, 22 1yr IOR 9x5 NBD 30L9188 ServicePac 2 yr IOR 9x5 NBD 30L9189
Security Security chip	Power-on password / ha IBM Embedded Securit authentication / local file	B.5 mm) / headphone jack (urd disk password / supervi t y Subsystem 2.0 33 / hardv encryption / enhances VP	sor pasśword / security ware key storage / mult N security¹º / TCG-com	y keyhole i-factor npliant	ServicePac 3 yr IOR 9x5 NBD 30L9195 ServicePac 4 yr IOR 9x5 NBD 30L9194
Limited warranty ¹²	1 year - EasyServ™,19 or	nsite pickup and delivery / s	service upgrades ²² avai	lable	ServicePac 5 yr IOR 9x5 NBD
256 MB PC2700 E 512 MB PC2700 DI 1GB PC2700 DDI Second HDD Ada CD-RW/DVD Con Multi-Burner Plus IBM USB Portable IBM USB 2.0 Com	nbo Drive	31P9830 T40/R50 High 31P9832 Ultrabay Slim I 1ntel PRO/Wir 62P4554 IBM 11a/b/g W 73P3275 IBM 11a/b/g W 73P3312 ThinkPad 72W 05K9276 ThinkPad Mini 73P4515 ThinkPad Mini	Dock	ell 08K8190 I 73P2801 ter II 73P4301 ter 31P9101 er 22P9010 74P6733 287810U	30L9196 ServicePac 2 yr P&L P/U Depot 30L9191 ServicePac 3 yr P&L P/U Depot 30L9192 ServicePac 4 yr P&L P/U Depot 69P9195 ServicePac 5 yr P&L P/U Depot 69P9197 Post-warranty annual maintenance
40GB HS Hard Dis	able Multi-Burner Drive sk 9.5mm (5400 rpm) sk 9.5mm (5400 rpm)		k II rying Case - Leather at ibm.com /pc/us/acce	73P3600	agreements at ibm.com/services/its/us/source/ maspspleu.pdf

Type-model Pro	Speed ocessor GHz Memory S	Graphics D creen controller G		Mini PCI Comm Bay wireless	modem/ Bluetooth ^T	Ethernet IEEE on 1394 Mplanar port	Security	Vorkhors Global (Entry (e (W) G) Avail E) date
1836-GDU Pentiur 1836-H7U Pentiur 1836-H8U Pentiur 1836-H9U Pentiur 1836-HAU Pentiur	m [®] M 715 1.5 256MB 14.1 m M 715 1.5 256MB 14.1 m M 715 1.5 256MB 15.0 m M 715 1.5 256MB 15.0 m M 725 1.6 256MB 15.0 m M 725 1.6 256MB 15.0 m M 725 1.6 256MB 15.0	"XGA 9000 60 "XGA 7500 40 "SXGA+ 7500 40 "SXGA+ 9000 60 "SXGA+ 9000 80	GB Combo GB DVD-RW	* Intel 11b/g Wi-Fi ³ 11a/b/g Wi-Fi ³² * Intel 11b/g Wi-Fi * Intel 11b/g Wi-Fi * Intel 11b/g Wi-Fi 11a/b/g Wi-Fi BM US Think Express	Modem Modem Modem Mod/Blue	10/100 Gigabit 139 10/100 10/100 Gigabit 139 Gigabit 139	Yes Yes 4 Yes	No Ji No Ji No Ji No Ji	al 2004 al 2004 al 2004 al 2004 al 2004 al 2004
Positioning	Mainstream performance			I-V 216			SOFTW	ARE ¹⁴	
Processor	Intel® Pentium® M Proce enhanced Intel SpeedSt					Windows X	Profes	sional	
L2 cache Memory	2MB / on die (at processe 256MB std / 2GB max ⁷ / two 200-pin SO-DIMM s	or speed) / EČČ PC2700 333MHz D	DDR1 (DDR-SI	DRAM) / non-parity /		- Microsoft® Profession	al ²⁰ sk Recov	very	
Diskette drive Combo DVD-RW	None standard / use opti Some: DVD-ROM/CD-F Some: CD-RW/DVD-RV	RW / 24X/24X/24X/8 V Multi-Burner / ren	BX ²¹ speed / re novable from U	Iltrabay Enhanced		(in hidden Preloaded Access IB	M	,	
Ultrabay Enhanced Disk	d One modular bay for intel 40GB8 (4200 rpm), 60GE removable and upgradab supports 2nd disk with op IBM Hard Disk Drive Sh	3 (4200 rpm), or 800 le / 9.5mm high bay itional 'Second HDE	GB (4200 rpm) / D Adapter for U	/ 9.5mm high / ltrabay Slim' /	mm high	 Access Co IBM Resci IBM Reco Access po (combo, D' InterVideo 	ue and R rdNOW a wered by VD-RW)	ecovery ¹ and Drive y Sonic p	Letter roducts
Display	Some: 14.1" (358.1mm) Some: 15.0" (381.0mm) Some: 15.0" (381.0mm) FlexView display	XGA (1024x768) 1 SXGA+ (1400x10	FT color / Act	ive Matrix / 200 nits	nits / echnology	DVD-RW) • InterVideo (DVD-RW) • Norton An	WinDVE	Creator	-
Graphics Graphics external	Some: ATI® Mobility™ R Some: ATI Mobility RAI External monitor support	DEON 9000 / AGP via analog DB-15 c	4X / 32MB DD onnector / up to	R1 (DDR-SDRAM) 5 1600x1200 at 85Hz	/DDC2B	PC-DoctorThinkPadAdobe Rea	™ Utilities ader		,
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Acss IBM buttor TrackPoint® pointing dev UltraNav™ multi-pointing Illuminates the keyboard	ice, "Press-to-Sele system / touch pad	ct," Internet Sc d below keybo	eroll Bar ¹³ , magnifying ard / Tap Zones	eys) g glass	IBM UpdaDownloadaIBM DirectSoftware I	ole or Agent		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	14.1" models (WxDxH): 1 15.0" models (WxDxH): 1 with optical drive and bat Color: black; All: Acrylc Lithium Ion 6-cell / intelli Up to 4.7 hr; Optional Hi	3.1" x 10.6" x 1.47- tery: 14.1" models: onitrile-Butadiene-S gent / supports uniq	1.58"; 332mm 6.0 lb (2.7kg); styrene (ABS) _l ue 2nd battery	x 269mm x 37-40mm <i>15.0" models:</i> 6.6 lb (plastic	n (3.0kg)	 System Mi Client Sec security ch License (CE Lotus® Sm Lotus Note 	urity Soft iip) not incli artSuite®	ware (fo uded) Millenni	r um and
Architecture PC Card Std slots Ports	Intel 855PM chipset / 828 82801DBM ICH4-M I/O C Low Pin Count [LPC] inte PCI4520A CardBus and (security chip; PC87392 C One Type I, one Type II, Two USB (Version 2.0)/	Controller Hub (ATA rface, USB, [Blueto 1394 controller, Min Super I/O for paralle or one Type III / Ca parallel / external r	-100 EIDE, PC oth]) / PCI bus ii PCI, external II, infrared, [doo ardBus 32-bit / nonitor (DB-15	I bus, ethernet MAC, 2.2 32-bit, 33MHz (T expansion) / LPC bu king-based ports]) PCMCIA 2.1 / integr b) / infrared (4Mbps)	s 33MHz ated door	ThinkPad no ThinkVanta design; visit Universal 72	je™ tech i bm.con	nologies 1 /thinkva	and ntage
Video out IEEE 1394 Wireless antenna Mini PCI Intel 11b/g ³² 11a/b/g Wi-Fi ³² CDC Modem Bluetooth	RJ-11 (modem) / RJ-45 S-video out port (TV out) Some: IEEE 1394 (FireV UltraConnect™ Antenna One Mini PCI type III slo Some: 11b/g Wi-Fi³² wir w One Communications Da 56K° V.90 (V.92-designe Some: Bluetooth wireles	/ one 4-pin industry Vire) port / 4-pin corpuilt into the display (Communications elless ⁴ , Mini PCI, Intereless ⁴ , Mini PCI, Intereless ⁴ , Mini PCI, and CDC) d ²⁹) modem in CDC is technology / in CDC is technology / in CDC	y standard con nector / 1394; cover for optin Bay) / custome el PRO/Wireles theros™ AR50 socket (used la / Conexant® cl C (with moder	nector a-2000 standard nal wireless signal red er upgradable ss 2200BG, Intel 8253 01X+ chipset by modem) / not acce nipset	32 chipset essible	Asset IDTM.34 chip acces PC 2001 and ACPI 1.0b a CIM and DM ENERGY ST IBM ImageL Internationa 24 hour x 7 of support di	(systemssed over d PXE 2.1 d 2.0-cor I 2.0-cor AR®-cor Itra™ Se I Warran day¹8 toll-	-specific r networ 0-compli ompliant opliant mpliant rvices av ty Servic free war	railable
Ethernet Audio support	Some: 10/100 ethernet o Some: Gigabit Ethernet o Soft audio / ICH AC97 co stereo speakers / 1 watt	on planar / Intel 8254 ontroller / DirectSou / volume up, down,	·0EP chipset (N Ind® support / / mute buttons /	ÍAC/PHÝ) / Ŵake on AD1981B AC97 code / internal microphone	LAN ec/	ServicePac ServicePac	,	30 9x5 NBI	L9188
Security Security chip	microphone input jack (3 Power-on password / ha IBM Embedded Securit authentication / local file	rd disk password / : y Subsystem 2.0	súpervisor pas ³ / hardware ke	śword / security key y storage / multi-fact	tor	ServicePac ServicePac	•	9x5 NBI 30 9x5 NBI) L9195
Limited warranty ¹²	1 year - EasyServ™,19 or	nsite pickup and del	ivery / service	upgrades ²² available		ServicePac	5 yr IOR	9x5 NBI)
256 MB PC2700 E 512 MB PC2700 DI 1GB PC2700 DDI Second HDD Ada CD-RW/DVD Con Multi-Burner Plus IBM USB Portable IBM USB 2.0 Com	nbo Drive	31P9830 T40/R5 31P9832 Ultraba 31P9834 Intel PF 62P4554 IBM 11 73P3312 ThinkP 05K9276 ThinkP 73P4515 ThinkP	50 High Capacity Slim Li-Polyth RO/Wireless 2: a/b/g Wireless ad/b/g Wireless ad 72W AC/DC ad Port Replicad Mini Dock	CardBus Adapter Combo Adapter	08K8214 08K8197 08K8190 73P2801 73P4301 31P9101 22P9010 74P6733 287810U	ServicePac ServicePac ServicePac ServicePac Post-warran	3 yr P&L 4 yr P&L 5 yr P&L	. P/U De ₁ 30 . P/U De ₁ 30 . P/U De ₁ 69 . P/U De ₂ 69 . P/U De ₂ 69	DL9191 Dot DL9192 Dot DP9195 Dot DP9197
40GB HS Hard Dis	able Multi-Burner Drive sk 9.5mm (5400 rpm) sk 9.5mm (5400 rpm)	08K9816 ThinkP		ase - BackPack com/pc/us/accessor	287710U 73P3599 ries	agreements	at n /servic	es/its/us	

			Mini DOI		0	
	Speed essor GHz Memory Screen	Disk GB [®] Optical	wireless m	CDC Integrate odem graphic	s chip Preload Entry (È) date	
2883-ARU Pentiur	n® M	00GB Combo * In 00GB Combo * In	tel 11b/g Wi-Fi ³²	lodem Extreme lodem Extreme lodem Extreme lodem Extreme lodem Extreme lodem Extreme	TM 2 Yes 1 yr XP Pro No Apr 2004 22 Yes 1 yr XP Pro No July 2004 22 Yes 1 yr XP Pro No July 2004 22 Yes 1 yr XP Pro No July 2004 24 Yes 1 yr XP Pro No July 2004 25 Yes 1 yr XP Pro No July 2004 26 Yes 1 yr XP Pro No July 2004	
Positioning Processor	Mainstream performance and feate Intel® Celeron M Processor 1.3G	ıres; two-spindle sy	stem		SOFTWARE ¹⁴	
FIOCESSOI	Intel Pentium M Processor 1.5GI	Iz or Intel Pentium	M Processor 715 (1.	.5GHz) with	Windows XP Professional - Microsoft® Windows® XP	
L2 cache Memory	enhanced Intel SpeedStep™ technic Celeron M: 512KB; Pentium M: 11 256MB std / 2GB max ⁷ / PC2700 two 200-pin SO-DIMM sockets / s	MB ; <i>Pentium M 718</i> 333MHz DDR1 (DD	5: 2 MB ; <i>All:</i> ECC DR-SDRAM) / non-pa		- Initiosoff Wildows AP Professional ²⁰ ♦ Disk-to-Disk Recovery (in hidden protected area)	
Diskette drive Combo Ultrabay Enhanced Disk	None standard / use optional USB-based diskette drive DVD-ROM/CD-RW / 24X/24X/24X/8X²¹ speed / removable from Ultrabay Enhan One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high 20GB³ or 30GB (4200 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' IBM Hard Disk Drive Shock Absorber / IBM Active Protection System				Access powered by Sonic products	
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits				(combo models)InterVideo WinDVD (combo models)	
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GME GMCH / uses main memory (up to 64MB) / 250MHz				 Norton AntiVirus (OEM edition) PC-Doctor™ 	
Graphics external	External monitor support via analo	g DB-15 connector	•		 ThinkPad Utilities Adobe Reader 	
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Access IBM button / palm TrackPoint® pointing device, "Pres UltraNav™ multi-pointing system / Illuminates the keyboard to improv	s-to-Select," Interr touch pad below k	net Scroll Bar ¹³ , magn eyboard / Tap Zones	I Bar ¹³ , magnifying glass // Tap Zones ititions Downloadable • IBM Director Agent • Software Delivery Assistant		
Dimensions ³ Weight ² Case material Battery - type Battery - life ¹⁰	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: 14.1" models: 6.0 lb (2.7kg); 15.0" models: 6.6 lb (3.0kg) Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced Celeron M model: up to 3.5 hr; Pentium M models: up to 4.7 hr; Optional High Capacity 9-cell: up to 6.9 hr				System Migration Assistant Client Security Software (for security chip) License (CD not included) Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Architecture PC Card Std slots	Intel 855GME chipset / 82855GM 82801DBM ICH4-M I/O Controller Low Pin Count [LPC] interface, US PCI4510 CardBus and 1394 contro (security chip; PC87392 Super I/O	Hub (ATA-100 EIDI B / PCI bus 2.2 32- bller, Mini PCI, exte for parallel, infrarec	E, PCI bus, ethernet N bit, 33MHz (TI® rnal expansion) / LPC I, [docking-based port	bus 33MHz s])	ThinkPad notebooks implement IBM ThinkVantage technologies and	
Ports	One Type I, one Type II, or one Ty Two USB (Version 2.0) / parallel / B.I-11 (modem) / B.I-45 (ethernet)	external monitor (E	DB-15) / infrared (4Mb	pps) /	design; visit ibm.com /thinkvantage	
Video out IEEE 1394 Wireless antenna Mini PCI Wireless upg ³⁶ Intel 11b/g ³² CDC Modem Bluetooth Ethernet Audio support	RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port S-video out port (TV out) / one 4-pin industry standard connector None UltraConnect™ Antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable Some: wireless upgradable with wireless Mini PCI options Some: 11b/g Wi-Fi³² wireless⁴, Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset One Communications Daughter Card (CDC) socket (used by modem) / not accessible 56K⁵ V.90 (V.92-designed²⁵) modem in CDC / Conexant® chipset None 10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN® Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec /				Universal 72 watt AC adapter Asset ID™.34 (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant IBM ImageUltra™ Services available International Warranty Service¹ 24 hour x 7 day¹ 8 toll-free warranty support during the warranty¹ 8	
Audio support	stereo speakers / 1 watt / volume microphone input jack (3.5 mm) /	up, down, mute but	tons / internal microp	hone/	ServicePac®, 22 1yr IOR 9x5 NBD 30L9188	
Security Security chip	Power-on password / hard disk pa IBM Embedded Security Subsys	ssword / súpervisc	or pasśword / security	keyhole	ServicePac 2 yr IOR 9x5 NBD 30L9189	
Limited warranty ¹²	authentication / local file encryptic 1 year - EasyServ™.19 onsite picku			•	ServicePac 3 yr IOR 9x5 NBD 30L9195	
128 MB PC2700 E 256 MB PC2700 E 512 MB PC2700 DI 1GB PC2700 DDI Second HDD Ada ThinkPad DVD-R CD-RW/DVD Cor Multi-Burner Plus IBM 4GB Microdri IBM USB Portable IBM USB 2.0 Ports IBM USB 2.0 Men TrackPoint Cap C	DDR-SDRAM CL2.5 SOD 31P9826 DDR-SDRAM CL2.5 SOD 31P9836 DSP83312 DDR-SDRAM CL2.5 SOD 31P9836 DSP83312 DDR-SDRAM CL2.5 SOD 31P9836 DSP83312	T40/R50 Series T40/R50 High C Ultrabay Slim Li ThinkPad Multip 40GB HS Hard I 80GB HS Hard I Intel PRO/Wirel IBM 11a/b/g Wir SonyEricsson® I ThinkPad 72W A ThinkPad Port F ThinkPad Mini E	Li-Ion Battery 6-cell lapacity Li-Ion Batt 9- Polymer Battery 3-ce le Battery Charger II Disk 9.5mm (5400 rpm Disk 9.5mm (5400 rpm ess 2200BG Mini PCI reless Mini PCI Adapt reless CardBus Adapt GC83 EDGE PC Card AC/DC Combo Adapt Replicator II	08K8214 cell 08K8197 ell 08K8190 22P9040 n) 08K9816 n) 09N4273 73P2801 er II 73P4301 ter 31P9101 I 26K3393	ServicePac 4 yr IOR 9x5 NBD 30L9194 ServicePac 5 yr IOR 9x5 NBD 30L9196 ServicePac 2 yr P&L P/U Depot 30L9191 ServicePac 3 yr P&L P/U Depot 30L9192 ServicePac 4 yr P&L P/U Depot 69P9195 ServicePac 5 yr P&L P/U Depot 69P9197 Post-warranty annual maintenance agreements at ibm.com/services/its/us/source/	
ThinkPad Carrying		Other options at	ibm.com/pc/us/acce	essories	maspspleu.pdf (2883) © IBM Corp. December 2004	

Availability: All offers subject to availability. IBM reserves the right to alter product offerings and specifications at any time, without notice. IBM is not responsible for photographic or typographic errors.

Warranty: For a copy of applicable product warranties, write to: Warranty Information, P.O. Box 12195, RTP, NC, 27709, Attn: Dept JDJA/B203. IBM makes no representation or warranty regarding third party products or services.

Footnotes:

- With Intel SpeedStep, processor speed may be reduced to conserve battery power.
- ² Travel weight includes battery and optional travel bezel instead of standard optical drive in Ultrabay bay, if applicable; weight may vary due to vendor components, manufacturing process and options.
- Thinness may vary at certain points on the system.
- Wireless capability: Requires compatible wireless-enabled options sold separately.
- 5 TAA: ThinkPad notebook is compliant with the U.S. Federal Government's country-of-origin requirements prescribed in 48 C.F.R. Subpart 25.4; Trade Act Agreement (TAA) model.
- Public network download speeds are limited to 53Kbps. Upload speeds are limited to 31.2Kbps. Compatible phone line and server equipment required. Actual speeds depend on many factors and are often less than the maximum possible.
- Maximum memory and hard disk drive capacity may require the replacement of standard component with largest supported component available.
- B Hard drive: GB = billion bytes, TB = trillion bytes. Accessible capacity may be less; up to 4GB is used in service partition.
- 9 CD/DVD drive speeds list maximum rates; rates are variable and are often less than the maximum.

- 10 Battery: These model numbers achieved the Ziff Davis Media Inc.'s Business Winstone 2002 BatteryMark™ Version 1.0, Battery Rundown Time of at least the times 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. Winstore is a registered trademark and BatteryMark is a trademark of Ziff Davis Publishing Holdings Inc., in the US and other countries. A description of the environment under which the test was performed is available at ibm.com/pc/ ww/thinkpad/batterylife. Battery life (and recharge times) will vary based on many factors including screen brightness, applications, features, power management, battery conditioning and other customer preferences. Refer to ibm.com/pc/support and enter machine type and model number for more information.
- Memory: For ThinkPad models without a separate video card, memory supports both system and video. Accessible system memory may be up to 64MB less than the amount stated, depending on video mode.
- Limited warranty: Support unrelated to a warranty issue may be subject to additional charges.
- 13 Internet access not included.
- ¹⁴ Included software may differ from its retail version (if available), and may not include user manuals or all program functionality. Software license agreements may apply.
- ¹⁵ Update Connector is available to registered ThinkPad customers during the limited warranty period at no charge. Line charges may apply.
- ¹⁶ IBM Embedded Security Subsystem works with optional VPN software.
- ¹⁷ International Warranty Service is available in any country in which this product is sold and serviced. Service delivery methods and parts availability vary by country, may be different from that in the country of purchase, and are subject to change without notice. Fees and restrictions may apply in some countries.

- ¹⁸ **Telephone support** may be subject to additional charges, even during the limited warranty period. If a machine is listed as having "On-site service for select repairs", this means that onsite service is available only for the replacement of select parts. For all other warranty repairs, IBM will provide the customer a replacement part for customer installation. The parts for which onsite service is available varies by machine, but may include the processor, power supply, heat sink, system board, or base cover. For IBM machines with EasyServ or Courier service, IBM will attempt to diagnose and resolve the problem remotely before sending a courier.
- ¹⁹ Depot repair: 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.
- ²⁰ Delivered with Windows 2000, Windows XP Professional, or Windows XP Home Edition preloaded and a recovery partition on the hard disk drive.
- For combination drives, maximum possible speeds only are given in the following order: CD write, CD rewrite, CD read, DVD read.
- 22 These services are available for machines normally used for business, professional, or trade purposes, rather than personal, family, or household purposes. Not all machine types and models are covered. Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. If the machine problem turns out to be a Customer Replaceable Unit (CRU), IBM will express ship the part to you for quick replacement. Onsite 24x7x2-hour service is not available in all locations. For ThinkPad notebooks requiring LCD or other component replacement, IBM may choose to perform service at the depot repair center.

- For ThinkPad X Series, the 32GB, 48GB, and 60GB HDD only supports ThinkPad Dock, UltraBase X2, or X3 UltraBase media slice and requires the ThinkPad Second HDD Adapter for Ultrabay 2000.
- ²⁴ Systems with limited onsite service are designed to be repaired during the applicable warranty period primarily with customer-replaceable parts provided by IBM. IBM will only send a technician onsite to perform a repair if (a) remote telephone diagnosis and/or customer part replacement are unable to resolve the problem, or (b) the part is one of the few designated by IBM for onsite replacement. For a list of onsite replaceable parts, contact IBM. Support unrelated to a warranty issue may be subject to additional charges. IBM onsite repair (IOR), 8 am to 5 pm, Monday through Friday coverage excluding holidays, next business day response time.
- ²⁵ Linux preloaded systems do not support UltraPort connector solutions and S-video-out port that may be included on this machine.
- ²⁶ As defined by ISO/IEC 15412.

- ²⁷ Based on IEEE 802.11a and 802.11b. A customer can not upgrade to a different wireless Mini PCI adapter due to FCC regulations. Security screws prevent removal of this adapter. This wireless LAN product has been designed to permit legal operation world-wide in regions 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 logo.
- ²⁸ **Certain Microsoft software products** included with this computer may use technological measures for copy protection. IN SUCH EVENT, YOU WILL NOT BE ABLE TO USE THE PRODUCT IF YOU DO NOT FULLY COMPLY WITH THE PRODUCT ACTIVATION PROCEDURES. Product activation procedures and Microsoft's privacy policy will be detailed during initial launch of the product, or upon certain reinstallations of the software products or reconfigurations of the computer, and may be completed by Internet or telephone (toll charges may apply).
- Public network download speeds are limited to 53Kbps. Upload speeds are limited to 48Kbps for V.92 modems. Actual speeds depend on many factors and are often less than the maximum possible. V.92 functions and speeds require compatible phone line and server equipment. Check with your telephone and ISP service providers for availability. Requires download of V.92 microcode when available and country approval.
- ³⁰ Measures only maximum data transfer rate, not application performance. Many factors affect application performance.
- ³¹ Internet access account (not included) and profiling at ibm.com/support required.
- Wireless: based on IEEE 802.11a, 802.11b, and 802.11g respectively. An adapter with 11a/b, 11b/g, or 11a/b/g can communicate on either/any of these listed formats respectively, the actual connection will be based on the access point to which it connects.

- 33 IBM Embedded Security Subsystem requires download of client security software from the Web and requires Internet access, not included.
- ³⁴ Asset ID allows system-specific information to be stored in a chip inside the system; it does not have any radio frequency support.
- Operating system: Level of support varies by operating system. Operating systems not preloaded on the system may not provise full feature functionality. Refer to ibm.com/pc/support and enter your machine type and model number for more information.
- Wireless upgradable allows the system to be wireless-enabled with an optional wireless Mini PCI card. These systems are designed to operate only with wireless LAN Mini PCI options sold by IBM.
- Mobile processors: Power management features reduce processor speed when in battery mode.

This publication was developed for products and services offered in the United States. IBM may not offer the products, services or features discussed in this document in other countries. IBM may withdraw an offering at any time. Information is subject to change without notice. Consult your local IBM representative for information on offerings available in your area.

IBM reserves the right to change specifications or other product information without notice. IBM is not responsible for photographic or typographical errors. IBM PROVIDES THIS PUBLICATION "AS IS," WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions, therefore this disclaimer may not apply to you.



Trademarks: IBM, the IBM logo Help-Center, IBM Rescue and Recovery, Rapid Restore, EasyServ, EtherJet, Lotus Notes, Lotus SmartSuite, ScrollPoint, ThinkLight, ThinkPad, ThinkPad Assistant, TrackPoint. ServicePac, UltraNav, Ultrabay, ImageUltra, UltraConnect, and Update Connector are trademarks or registered trademarks of IBM Corporation in the United States and/or other countries. The Bluetooth word mark and logos are owned by the Bluetooth SIG, Inc. Any use of such marks by IBM is under license. Microsoft and Windows are trademarks of Microsoft Corporation. Intel, Intel Inside, the Intel Inside logo. Intel Centrino logo. Pentium. Celeron and Intel SpeedStep are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries. Cisco and Aironet are registered trademarks of Cisco Corporation. Linux is a trademark of Linus Torvalds in the United States, other countries, or both. Other company, product and service names may be trademarks or service marks of others.

ENERGY STAR: As an ENERGY STAR Partner, IBM has determined that this product meets the ENERGY STAR guidelines for energy efficiency. ENERGY STAR is a U.S. registered mark.

Visit ibm.com/pc/safecomputing periodically for the latest information on safe and effective computing.

© Copyright International Business Machines Corporation, 2005. All rights reserved

IBM Personal Computing Division Department WY3A 3039 Cornwallis Road Research Triangle Park, NC 27709

May 2005 trwbook.pdf