

Personal Systems Reference IBM IntelliStation professional workstation

October 2001 - Version 230



IBM IntelliStation® E Pro (6836)

											1	
IBM [®] Type-model	Processor	MHz	Memory	Disk	SCSI adapter	CD-ROM	Graphics adapter and memo	Slots: ry bays		Preload	Available date	
	Pentium® III Pentium III	866 866 933 933 933 1.0GHz 800	64MB 128MB 128MB 128MB 128MB 128MB 128MB 128MB 128MB 128MB	15GB EIDE 15GB EIDE 9.1GB SCSI 15GB EIDE 15GB EIDE 9.1GB SCSI 15GB EIDE None	None None 29160LP None None 29160LP None None	48X-20X 48X-20X 48X-20X 48X-20X 48X-20X 48X-20X 48X-20X 48X-20X 48X-20X	Millennium G450 16MB Millennium G450 16MB Millennium G450 16MB NVIDIA GeForce2 MX 32M NVIDIA GeForce2 MX 32M		10/100 10/100 10/100 10/100 10/100 10/100 10/100 10/100 10/100	2000 or NT 2000 or NT	Oct 2000 Oct 2000 Oct 2000 Oct 2000 Oct 2000 Oct 2000 Oct 2000	
Intel® proces L2 cache Implementat SMP suppor	ion F	256KB sto Processor	d and ma and L2 o kets, thre	x / EĆC / at p cache in Flip-0	rocessor sp Chip Pin Gri	eed d Array (F	3MHz Front Side Bus C-PGA) / motherboard contagrated ethernet	ains one	e Intel PG	A370 socket,	three	
Memory - sto Memory - so Memory - fea	ckets 3	3 sockets	/ 2 availa	td / 1.5GB ma able / ECC (E / three 168-p	rror Checkii	ng and Co ed DIMM	orrecting) DIMMs and ECC r 3.3 v sockets / supports unb	nemory ouffered	controller SDRAM	· / PC133-co ECC DIMMs	mpliant /	
Graphics cor (one of fol	llowing)	max 166 NVIDIA	MHz SD	RAM / two`DÈ :e2 MX (adva	3-15 connec	tors (dúal	AGP 4X adapter / Matrox Momonitor capable) dapter / NV11 GPU / 32MB s					
SCSI disk co	ontroller 3	SCSI mod					Wide Ultra160 SCSI (LVD					
SCSI conne IDE disk con Cables	itroller E	Enhanced S <i>CSI mod</i>	<i>dels:</i> One I IDE bus <i>dels:</i> One	e 68-pin interr smaster / ATA e 3-drop 16-bi	nal SCSI còi 66 support t LVD SCSI	nnector / c : (ATA-100 cable, or	slot) / one channel with up tone 0.8mm VHDCI 68-pin e 0 on later models) / two consecutory EIDE cable (connection) of CD-ROM, one 1-drop	xternal : nectors	SCSI coni on plana	nector r		
Disk - featur	es <i>E</i>	EIDE mod	cab <i>lels:</i> 15G	le to EIDE dis	sk) k-100 / 7200	rpm / 8.7	ms read seek / S.M.A.R.T. ns read seek / S.M.A.R.T.	Cover	key lock	etect switch		
Rack suppor Architecture	/ chipsets \	PCI 2.2 32	2-bit 33M	Hz controller.	AGP 4X) / V	IA VT82C	ridge (memory controller, 686A or 686B South par, serial, kybd, mouse)	PoweAdmirBoot sBoot y	r-on passy nistrator pa sequence without ke	word assword control yboard or mo		
100/10Mbps				anar / 10Base bus / support			luplex /			hibit and writ erial port, pa		
CD-ROM / d External por	iskette 4 ts 5	18X-20X⁴ S <i>erial:</i> Tw	CD-RON o 9 pin; I	/I / CAV (ATAI P <i>arallel:</i> One	PI) / bootab (EPP, ECP)	le / IDE' 3 / IEEE 12	.5" 1.44MB diskette drive 284; <i>USB:</i> Two (Ver 1.1); bhone in, MIDI	te drive I/O control				
Systems mg	mt N	Monitoring	g and ale		ory, thermal	, fans, and	d voltage faults /					
Keyboard / r Cooling fans	ard / mouse IBM 104-key keyboard / IBM ScrollPoint™ II mouse • IBM Security Solutions											
cooling fans (power supply, front, rear) / not redundant or hot-swap / fans have two speeds Power supply Slot 1: fullsize, AGP 4X, 25 watt (3.3v) - used by std graphics a Slot 2: fullsize, 32-bit 33MHz, PCI 2.2 (5v) - Alert on LAN 2 sup Slot 3: fullsize, 32-bit 33MHz, PCI 2.2 (5v) - used by SCSI (son Slot 4: fullsize, 32-bit 33MHz, PCI 2.2 (5v)							support					

Windows 2000 Professional Preload7

Microsoft® Windows® 2000 Professional

- Free license for Lotus® SmartSuite® Millennium
- Free license for Lotus Notes® Client
- Device Drivers and Diagnostics CD-ROM
 Software Selections CD-ROM
- ♦ Windows 2000 Product Recovery CD-ROM
- Windows NT 4.0 (SP6) Product Recovery CD
- ♦ Disk-to-Disk Recovery (Windows 2000 or NT) 4.0 SP6 in hidden service partition)

64MB SDRAM ECC 133MHz unbuffered DIMM 128MB SDRAM ECC 133MHz unbuffered DIMM 256MB SDRAM ECC 133MHz unbuffered DIMM 512MB SDRAM ECC 133MHz unbuffered DIMM 33L3079 33L3081 33L3083 33L3085 IBM 20.4GB ATA-100 EIDE HDD 19K4461 IBM 20.4GB ATA-100 EIDE HDD
IBM 30GB ATA-100 EIDE HDD
IBM 9.1GB 7200rpm Ultra160 SCSI HDD
IBM 18.2GB 7200rpm Ultra160 SCSI HDD
IBM 36.4GB 7200rpm Ultra160 SCSI HDD
IBM 9.1GB 10K Ultra160 SCSI HDD
IBM 18.2GB 10K Ultra160 SCSI HDD 00N8203 00N8207 00N8208 00N8209 IBM 36.4GB 10K Ultra160 SCSI HDD IBM 9.4GB DVD-RAM (black)
IBM IDE 8X/4X/32X CD-Rewritable (black) 10K3561 331 5020 IBM 250MB Zip Drive (black) 00N8078 IBM P96 Color Monitor (black) 655163N

- 72.8GB (2 disks x 36.4GB)
- Configuration/Setup Utility (in flash)
- startup
- CTRL+A
- 00N8204 Adv Config Power Interface (ACPI) 1.0 →
- 00N8206 Universal Manageability Services enabled

 - SMART Reaction™,15 II

· Maximum internal SCSI disk capacity:

Bay ① 5.25", HH 1.6", access,

access.

access.

Bay ② 5.25", HH 1.6" Bay ③ 3.5", SL 1", Bay ④ 3.5", SL 1",

diskette

disk

- memory) invoked by pressing F1 at SCSISelect near startup by pressing
- 00N8205 ISO 9241-3 capable
 - LANClient Control Manager™ enabled
 - PC 99-compliant

- Removable top cover

- DMI 2.0-compliant
- Common Information Model (CIM) 2.2

- no access, std disk Stealth black color • Bay 1 and 2 in cage flips up CD-ROM Bay 3 and 4 in cage flips up
 H 5.52" x W 16.73" x D 16.73"
 - ⇒ H140mm x W425mm x D425mm
 - 23 to 25 pounds (10.5 to 11.4kg)

LIMITED WARRANTY*,3

3 year parts and labor

CD-ROM

std diskette

open

- International Warranty Service³
- On site, 8 am through 5 pm,
- Mon through Fri excluding holidays, next business day response time 3 year on site warranty service
- upgrade options:9
- · 4 hour response, 7 day x 24 hr
- Post warranty maintenance services available
- 24 hour x 7 day12 telephone, fax, electronic, and Internet support

^{*} For a copy of IBM's Statement of Limited Warranty, call 1-800-772-2227 US models announced October 10, 2000

III IntelliStation® E Pro (6846)

IBM [®] Type-mode	Processor	MHz	Memory	Disk	SCSI adapter	CD-ROM	Graphics adapter and me		Slots x bays		Preload	Available date
6846-35U 6846-37U 6846-47U	Pentium III Pentium III	866 866 933 933 933	128MB 128MB 128MB 128MB 128MB 128MB 128MB 256MB 256MB	15GB EIDE 15GB EIDE 9.1GB SCSI 9.1GB SCSI 15GB EIDE 15GB EIDE 9.1GB SCSI 9.1GB SCSI None	None None 29160LP 29160LP None None 29160LP 29160LP None	48X-20X 48X-20X 48X-20X 48X-20X 48X-20X 48X-20X 48X-20X 48X-20X 48X-20X	NVIDIA GeForce2 MX 3: Millennium G450 16MB NVIDIA GeForce2 MX 3: NVIDIA GeForce2 MX 3: NVIDIA GeForce2 MX 3:	2MB 2MB	6x7 6x7 6x7	10/100 10/100 10/100 10/100 10/100 10/100 10/100 10/100 10/100	2000 or NT 2000 or NT	Oct 2000 Oct 2000 Oct 2000 Oct 2000 Oct 2000 Oct 2000 Oct 2000
Intel® proc L2 cache Implement SMP supp	ation I	256KB ste Processor	d and ma r and L2 o ckets, thre	x / EĆC / at po cache in Flip-C	rocessor sp Chip Pin Gri	eed id Array (F	3MHz Front Side Bus C-PGA) / motherboard co PCI extender board, one /					
Memory - s Memory - s Memory - s	sockets (eatures (3 sockets SDRAM /	/ 2 availa / 133MHz	/ three 168-p	rror Checki in gold-plat	ted DIMM (rrecting) DIMMs and EC0 3.3 v sockets / supports u	unbuf	fered	SDRAM	ECC DIMMs	
Graphics of force of f	ollowing)	max 166 NVIDIA	3MHz SD	RAM / two DĒ ce2 MX (advai	3-15 connec	ctors (dual	AGP 4X adapter / Matrox monitor capable) dapter / NV11 GPU / 32Ml					
SCSI disk of SCSI conninction of the scale o	pectors (SCSI mod Enhanced SCSI mod EIDE mod	64-l dels: One d IDE bus dels: One dels: Two cab	bit 33MHz PC e 68-pin intern smaster / ATA e 5-drop 16-bi o EIDE cables le to EIDE dis	I adapter (in al SCSI controller (in al SCSI	n a 32-bit sonnector / connector / connect	Wide Ultra160 SCSI (LVI slot) / one channel with u one 0.8mm VHDCI 68-pin 0 on later models) / two c e 2-drop EIDE cable (cor CD-ROM, one 2-drop	ip to n exter conne nnect	15 devernal S ectors eed to	vice supp SCSI cons on plana CD-ROM	nector r 1) ECURITY	
Rack supp	ort 2 e / chipsets	SCSI mod 4U ¹⁷ rack VIA® Apo PCI 2.2 33	mount sullo Pro13 2-bit 33M	GB Ultra160 So upport via towe 33A chip set / Hz controller, /	CSI / 7200 er-to-rack ki VT82C694 AGP 4X) / \	rpm / 7.5 m it option X North Br /IA VT82C	ms read seek / S.M.A.R.T ns read seek / S.M.A.R.T ridge (memory controller, 686A or 686B South par, serial, kybd, mouse)	. • (0 • (3 • (4 • (4) • (4) • (4)	Cover Secure Sower Admin Boot s Boot w	tamper de fixed DA on passistrator passistra	Netect switch ASD word assword control yboard or mo	
100/10Mbp CD-ROM / External po Systems m	diskette dis	32-bit 33№ 48X-20X⁴ <i>Serial:</i> Tw keyboard Monitorin	MHz PCI CD-RON vo 9 pin; , mouse, g and ale	<i>Parallel:</i> One (audio line in,	for Wake of the control of the contr	on LAN® ble / IDE' 3.) / IEEE 12 but, microp I, fans, and	uplex / .5" 1.44MB diskette drive .84; <i>USB:</i> Two (Ver 1.1); shone in, MIDI d voltage faults /	Diskette boot inhibit and write-pro Diskette, disk, serial port, parallel O control Source access appairings				rallel port
Keyboard / Cooling fai	mouse I	IBM 104-k Three (80 models) o middle) / i two speed	key keybo 0 and 86 cooling far not redun	pard / IBM Scr. 6MHz models ns (power sup dant or hot-sw ral / auto sensi	ollPoint™ II) or four (ot ply, disks, r vap / fans h	mouse her ear, ave	Bay ④ 3.5", SL 1", acc	ess, ess, ess,	BM Se CD- ope	-ROM -n kette	CI	D-ROM
Microsoft' - Free lic - Free lic - Device - Softwa - Window - Window - Disk-to - 4.0 SP - Options	2000 Profe Windows Cense for Lot Drivers and The Selections Select	2000 Pro tus® Smar tus Notes Diagnosi s CD-ROI duct Rece P6) Prod ery (Wind service pa	ofessional official rtSuite official rtS	Millennium Si Si Si Si Si ROM Si Si Si O or NT	lot 2: fullsiz lot 3: fullsiz lot 4: fullsiz lot 5: fullsiz lot 6: fullsiz Description Merican	te, AGP 4X te, 32-bit 3 te, 32-bit 3 te, 32-bit 3 te, 32-bit 3 te, 32-bit 3 tal cage for of chassis of front stab	Bay ® 3.5", SL 1", no a Bay ® 3.5", SL 1", no a K, 25 watt (3.3v) - used by 3MHz, PCI 2.2 (5v) - slot 3MHz, PCI 2.2 (5v) - used 3MHz, PCI 2.2 (5v) - used 3MHz, PCI 2.2 (5v) - on to 3MHz, PCI 2.2 (5v) - on to 3MHz, PCI 2.2 (5v) - on to 10 slot bays 5,6,7 rotates solitizing feet	acces acces std A has A d by S	ss, ope ss, disk AGP g Alert o SCSI a	en (c raphics a n LAN 2 : adapter (: I extende	adapter support some) or board r board S	iskette iskette isket
128MB S 256MB S 512MB S IBM 4Ux2 IBM 20.4 IBM 30GI IBM 9.1G IBM 18.20 IBM 36.44 IBM 9.4G IBM 9.4G IBM 1DE IBM 250M		133MHz (133MHz (133MHz (0-Rack K 0 EIDE HI EIDE HDE Ultra160 S Ultra160 (0 SCSI (160 SCS) 160 SCS (160 SCS)	unbuffered unbuffered unbuffered it DD D GCSI HDD SCSI HD SCSI HD HDD I HDD I HDD I HDD	d DIMM 33L3 d DIMM 33L3 d DIMM 33L3 O9N4 19K4 OON8 OON8 D OON8 D OON8 OON8 OON8 OON8 OON8 OON8 OON8 OON8	.081	470mm x V to 43 poun timum inte. 6GB (4 dis novable let figuration/ nory) invol- tup SISelect ne RL+A Config Po versal Man bled IClient Cor	V 165mm x D 508mm ds (15.9 to 19.5kg) rnal SCSI disk capacity: sks x 36.4GB) ft side panel Setup Utility (in flash ed by pressing F1 at ear startup by pressing ower Interface (ACPI) 1.0 ageability Services atrol Manager™ enabled	 ⇒ III ⇒ C M m ⇒ 3 u • ⇒ F a ⇒ 2 	year nterna On site Mon th next be year upgrad 4 hou vailab 4 hou	parts and titional Was, 8 am the rough Frusiness on site was de option arranty roble	larranty Serv nrough 5 pm ri excluding day respons varranty serv	vice ³ , holidays, se time rice 24 hr services

^{*} For a copy of IBM's Statement of Limited Warranty, call 1-800-772-2227 US models announced October 10, 2000

Models withdrawn from marketing effective May 2001 or October 2001

III IntelliStation® E Pro (6204)

IBM® Type-model Processor	GHz ¹	L2 cache	Memory	Disk an	d rpm	SCSI adapter	CD-ROM	Graphics adapter and memory	Slots 2 bavs	c Preload	Available date
6204-10U Pentium® 4 6204-20U Pentium 4 6204-30U Pentium 4	1.6GHz 1.8GHz	256KB 256KB	128MB 128MB	40GB ² 40GB	7200 7200	None None	CD-ROM CD-ROM	NVIDIA™ Quadro2 EX 32MB NVIDIA Quadro2 EX 32MB NVIDIA Quadro2 EX 32MB	4x3 4x3	Windows® 20007 Windows 2000 Windows 2000	Oct 2001 Oct 2001 Oct 2001

Positioning Processor L2 cache Implementation SMP support	Compelling combination of price, performance and design Intel® Pentium 4 1.6, 1.8, 2.0GHz with 400MHz¹ Front Side Bus 256KB std and max / ECC / full speed Processor and L2 cache in FC-PGA2 in mPGA478 socket No SMP support	Desktop Small Form		diskette CD-ROM disk
Memory - std/max Memory - sockets Memory - type	128MB / 1GB max Two 168-pin gold plated DIMM sockets / one socket used 133MHz SDRAM / Error Checking and Correcting (ECC) DIMMs and ECC memory controller / industry std / unbuffered / PC133-compliant / CAS Latency 2 (CL2)	Bay @ 5.25" Bay @ 3.5", Slot 1: Low Slot 2: Low	, HH 1.6", a SL 1", r Profile, 32-b Profile, 32-b	
Graphics controller	NVIDIA Quadro2 EX (entry 3D) / AGP 4X adapter / NV11GL GPU / 32MB std and max 166MHz SDRAM / 350MHz RAMDAC / one analog DB-15 connector	Slot 4: Low Stealth bla 14.2" W X	Profile, 32-b ck color 16.2"D X 4. X 412mm D	oit PCI 2.2 (5v) 1"H 0 X 104mm H
SCSI disk controller Disk Disk controller Diskette drive CD-ROM DVD-ROM Cables	None ATA-100, 7200 rpm, 8.7 ms average read seek, S.M.A.R.T. ¹⁵ Enhanced IDE / ATA-100 / integrated in I/O Controller Hub (ICH2) 3.5" 1.44MB diskette drive Some models: 48X-20X ⁴ CD-ROM / bootable Option Two EIDE 80-conductor cables (one 1-drop cable to CD, one 1-drop cable to disk)		d 2/3`flip up ils for disk m over removal GP and PCI	(latched and pivoting) counting l slots
Rack support Chipset	None Intel 845 chipset / 82845 Memory Controller Hub (MCH) / 82801BA I/O Controller Hub (ICH2) for PCI 2.2 bus, ATA-100 EIE ethernet MAC, USB, Low Pin Count Interface / 82802 Firmware H National® 87360 Super I/O for diskette, parallel, serial, keyboard, r	Hub /	Cover ke Secure f	SECURITY U-bolt support via knockout ey lock (on rear) ixed DASD
Ports	Front: None Back: two 9-pin serial, parallel, two USB (Ver 1.1), keyboard, mousethernet, monitor	se,	Administ Boot sec	n password trator password quence control
Audio connectors Speakers Ethernet	Integrated digital audio / SoundMAX® 3.0 with SPX™ / software-bas (done by processor and ICH2) / AC '97 interface / ADI1887 code (analog mixing, Analog-to-Digital and Digital-to-Analog conversion) Back: microphone jack, line-in, line-out One internal speaker for business audio 10/100 ethernet on planar / ICH2 (MAC layer) with Intel 82562ETPH layer) / supports PXE and Wake on LAN® / Intel Pro/100VE Desktop (c) HY (physical	Diskette Diskette I/O conti Secure a Secure r VPD sto	access openings removable media red in EEPROM
Security chip Keyboard / mouse	None (so no cover tamper detect switch) 104-key (rubber dome) keyboard / IBM 3-button mouse			otection control for EEPROM labels on most components
Cooling fans Power supply	Two or three variable speed fans (power supply, fansink, some have 160 watts with variable speed fan / universal / manual switch	e third fan)	-	
 Lotus® SmartSu Lotus Notes® Cli Disk-to-Disk Rec 	s® 2000 Professional 128MB SDRAM PC133 CL2 ECC UDIN 256MB SDRAM PC133 CL2 ECC UDIN 256MB SDRAM PC133 CL2 ECC UDIN 512MB SDRAM PC133 CL2 ECC UDIN 2000 FM 2000	MM 10K0046	⇒ 3 year ⇒ Interna⇒ On site	parts and labor tional Warranty Service ³ s, 8 am - 5 pm, Mon - Fri

- ♦ Software Selections CD-ROM
- Maximum internal EIDE disk capacity: 80GB (1 disk x 80GB 7200 rpm)
- Configuration/Setup Utility invoked by
- pressing F1 at startup Universal Manageability Services enabled
- LANClient Control Manager™ enabled
- Common Information Model (CIM) 2.2
- PC 2001-compliant
- Advanced Power Management 1.2
- Advanced Configuration and Power Interface (ACPI) 1.0b System Management BIOS
- DMI 2.0-compliant
- Wired for Management 2.0-compliant

60GB IDE Disk ATA-100 (7200 rpm) 80GB IDE Disk ATA-100 (7200 rpm) 09N4207 09N4208 PCI Ultra160 SCSI Adapter 19K4646 IBM 16X⁴ max DVD-ROM Drive (black) 16X/10X/40X⁴ Max CD-RW internal (blk) 22P6950 24P3626 8X/4X/32X/8X4 Max CD-RW/DVD-ROM

Combo drive (black)
IBM DVD-RAM/DVD-R Drive (black) Zip Drive 250MB (white/black)
IBM P96 19" (17.9" v.i.s.) Monitor (black)
IBM P275 21" (19.8" v.i.s.) Monitor (blk) IBM T540 15" Flat Panel Monitor (black)
IBM T560 15" Flat Panel Monitor (black) 6656HG2 22P5170 33L3252 IBM Wireless keyboard and mouse (blk) Spaceball 3D Input Device

IBM 1394 Firewire Adapter

10K3790 22P6959 00N8078 655163N 6652U3N 9511AG4

19K5790

- coverage excluding holidays, next business day response time
- 3 year on site warranty service upgrade options:9
 - 4 hour response, Mon-Fri 8-5 (ServicePac® part number 41L2735)
 - 4 hour response, 7 day x 24 hr (ServicePac part number 41L2741)
- Post warranty maintenance services available
- 24 hour x 7 day¹² telephone, fax, electronic, and Internet support

IntelliStation® E Pro (6214)

IBM® Type-model Proces	L2 sor GHz ¹ cache I	Memory Disk and	SCSI rpm adapter	CD-RON	Graphics		Slots x bays	Preload	Available date
6214-10U Pentiur 6214-20U Pentiur 6214-23U Pentiur 6214-30U Pentiur	m [®] 4 1.6GHz 256KB m4 1.8GHz 256KB m4 1.8GHz 256KB m4 2.0GHz 256KB m4 2.0GHz 256KB	128MB 40GB ² EIDE 128MB 40GB EIDE 128MB 18.2G SCSI 128MB 40GB EIDE	7200 None 7200 None 10K 29160LP 7200 None	CD-RON CD-RON	M Millennium G M Millennium G M Quadro2 Pro M Millennium G	6450 16MB 6450 16MB 64MB 6450 16MB	6x7 V 6x7 V 6x7 V 6x7 V	Vindows® 200 Vindows 200 Vindows 200	0 Oct 2001 0 Oct 2001 0 Oct 2001
Positioning Processor L2 cache Implementation SMP support	Intel® Pentium 4 1.6 256KB std and max /	tion of price, performa , 1.8, 2.0GHz with 40 ECC / full speed che in FC-PGA2 in m	0MHz¹ Front Ši	de Bus	Mini-towerStealth blackH 18.5" x WH 470mm x35 to 43 pour	6.5" x D 20 W 165mm ınds (15.9 t	x D 508 to 19.5k	(g)	CD-ROM ② diskette
Memory - std/max Memory - sockets Memory - type	133MHz SDRAM / E	ated DIMM sockets / o rror Checking and Co ontroller / industry std /	rrecting (ECC) [OIMMs	 Metal cage f out of chass Two front states Handle grip Toolless cov 	is abilizing fee on top er removal	et	rotates	⑤ 6 disk
Graphics controller (one of following)	dual RAMDAC [360 70Hz and 1600x120 • NVIDIA™ Quadro2 NV15GL 250MHz 0 350MHz RAMDAC	m G450 (performance 50F GPU / 16MB 150N 0/232MHz] / dual head 00x16M at 85Hz / two 2 Pro (advanced 3D) / GPU / 64MB 200MHz / single head: 2048x1 onnectors (same image	MHz SDRAM / d: 2048x1536x1 DB-15 connecto AGP 4X adapte DDR-SDRAM / I535x16M at 75	ors er /	• Toolless AG • Removable Bay ① 5.25", I Bay ② 5.25", I Bay ③ 3.5", S Bay ⑥ 3.5", S Bay ⑥ 3.5", S Bay ⑥ 3.5", S	left side pa HH1.6", aco HH1.6", aco SL 1", aco SL 1", aco SL 1", no	nel cess, cess, cess, access access	,open	
SCSI disk controlle SCSI connectors IDE disk controller Cables	(in a 32-bit slot) / one SCSI models: One 6 one 0.8mm VHDCI 6 Enhanced IDE / ATA SCSI models: One 5 EIDE EIDE models: Two E	160MB/sec) / 64-bit e channel with up to 68-pin internal SCSI o 68-pin external SCSI	33MHz PCI ada 15 device suppo connector / connector O Controller Hub SI cable, one 2 CD-ROM) rop cable to CD	apter ort (ICH2) -drop	Bay © 3.5", Slot 1: fullsize Slot 2: fullsize Slot 3: fullsize Slot 4: fullsize Slot 5: fullsize Slot 6: fullsize *** on two-slot I	e, AGP 4X, e, 32-bit 33 e, 32-bit 33 e, 32-bit 33 e, 32-bit 33 e, 32-bit 33	MHz, P MHz, P(MHz, P(CSI ada MHz, P(MHz, P(t (3.3v) - use CI 2.2 (5v) CI 2.2 (5v) CI 2.2 (5v) - (apter (some CI 2.2 (5v)** CI 2.2 (5v)**	used by
Disk - features CD-ROM / diskette Rack support Chipset	SCSI models: 18.2G EIDE models: 40GB 48X-20X ⁴ CD-ROM, 4U ¹⁷ rack mount supp Intel 845 chipset / 82 82801BA I/O Control	GB Uİtra160 SCSI / 10k GEIDE / ATA-100 / 720	Crpm / 5.2 ms readourpm / 8.7 ms 1.44MB diskette kit option ler Hub (MCH) / CI 2.2 bus, ATA	read see drive	ek / S.M.A.R.T.	 Optiona Cover k Secure f Power-c Adminis Boot se 	U-bolt ey lock fixed DA on pass trator p	ÀSD word assword	knockout
Ports Audio Audio connectors Speakers Ethernet Security chip	National® 87360 Sup Front: None Back: two 9-pin seria ethernet, moni Integrated digital aud (done by processor a Back: microphone jac One internal speaker 10/100 ethernet on pl	er I/O for diskette, pa al, parallel, two USB (\ itor dio / SoundMAX® 3.0 w and ICH2) / AC '97 in ck, line-in, line-out of for business audio lanar / ICH2 (MAC lay and Wake on LAN® / Ir	rallel, serial, key Ver 1.1), keyboa vith SPX™ / softv terface / ADI18 er) with Intel 825	vboard, nous ware-bas 87 code 662ETPH	nouse se, sed audio C IY (physical	 Boot wit Diskette Diskette I/O cont Secure Secure VPD sto Write pr 	hout ke boot in , disk, s rol access remova red in E otection	eyboard or manibit and write serial port, part openings ble media	ite-protect arallel port
Keyboard / mouse Cooling fans Power supply	104-key (rubber dome Three cooling fans (p 340 watts with variab		or fansink, rear)		ve two speeds				
- Lotus® SmartSi - Lotus Notes® C - Disk-to-Disk Re	ws® 2000 Professional uite® Millennium licens lient license scovery (in Service Pa and Diagnostics CD-Ftions CD-ROM nal EIDE disk capacity x 80GB 7200 rpm) nal SCSI disk capacity x x 36.4GB) setup Utility invoked b startup geability Services enarol Manager™ enabled nation Model (CIM) 2.2 iant er Management 1.2 iguration and (ACPI) 1.0b ement BIOS	se 256MB SDRAI 512MB SDRAI 512MB SDRAI 60GB IDE Disl 80GB IDE Disl 9CI Ultra160 S 36.4GB 10K rp 18M 16X4 max 12X/8X/32X4 M 16X/10X/40X4 8X/4X/32X/8X Combo driv 18M DVD-RAM Zip Drive 250M IBM P96 19 "(IBM P975 21" IBM T540 15" FIBM T540 15" FIBM Wireless & Spaceball 3D I IBM rack mour	ATA-100 (720) CSI Adapter om Ultra160 SC: om U	ECC UDI ECC UDI 0 rpm) 0 rpm) SI disk sI disk ve (black ernal (blackernal (bla	MM 10K0046 MM 10K0048 09N4207 09N4208 19K4646 19K0658 00N8209 (2) 22P6950 ack) 10K3785 ilk) 24P3626 M 10K3790 22P6959 00N8078 ck) 655163N 9511AG4 (656HG2	⇒ 3 year ⇒ Interna → On site covera next bi ⇒ 3 year upgrau • 4 hou (Serv • 4 hou Service ⇒ Post w service ⇒ 24 hou	parts a attional v e, 8 am ige exc usiness on site de optio ur respondere ricePac varranty es avai ir x 7 da	Warranty Se - 5 pm, Moi luding holid s day respor warranty se onse, Mon-F part numbe onse, 7 day part numbe y maintenar	ervice ³ n - Fri days, nse time ervice Fri 8-5 er 41L2735) x 24 hr r 41L2741) nce ne, fax,

IIM IntelliStation® M Pro (6849)

	IBM® Type-model Processor	r GHz ¹ Memory Disk	and rpm	SCSI adapter	CD-ROM	Graphics adapter and m	Slots x		Available ad ⁷ date
><	6849-10U Pentium®		EIDE 7.2K	None	48X-20X ⁴	Millennium G450 16ME Millennium G450 16ME	3 6x7	10/100 2000 o 10/100 2000 o	r NT Nov 2000
*	6849-12U Pentium	4 1.4 512MB 18.2GB	Ultra160 10K	29160LP	48X-20X	NVIDIA™ Quadro2 MX	(R 32M 6x7	10/100 2000 o	r NT Nov 2000
		4 1.4 512MB 18.2GB 4 1.5 256MB 20.4GB		29160LP None		IBM Fire GL2 64MB Millennium G450 16MB		10/100 2000 o 10/100 2000 o	
	6849-21U Pentium	4 1.5 512MB 18.2GB	Ultra160 10K	29160LP	48X-20X	Millennium G450 16ME	3 6x7	10/100 2000 o	r NT Nov 2000
	6849-23U Pentium	4 1.5 512MB 18.2GB 4 1.5 512MB 18.2GB			48X-20X	IBM Fire GL2 64MB	6x7	10/100 2000 o	
		4 1.4 256MB None 4 1.5 256MB None		None None		Millennium G450 16ME Millennium G450 16ME		10/100 2000 o 10/100 2000 o	
	Intel® processor L2 cache	Pentium® 4 at 1.4 or 1.5 256KB std and max / a	GHz1 with 400	OMHz Froi	nt Side Bu	s			
	Implementation	Processor and L2 cache	e in Pin Grid A	rray (PGA					tium 4 and
	SMP support	heat sink), four RIMM s No SMP support	ockers, live PC	of Siols, of	ie AGP Sic	i, integrated ethernet,	and 850 chip) w/ neat sink	
	Memory - std / max	256 or 512MB std / 2G							
	Memory - features	256MB models: Two 81 ECC memory controll							
		two RIMMs installed (o all installed RIMMs mus							
	Graphics controller	Matrox® Millennium (<u> </u>		- I	
	(one of following)		32MHz] / dual	head: 204	8x1536x10	6M at $70Hz$ and $1600x$	1200x16M at	85Hz / two DB	-15 connectors
		DB-15 and DVI-I conr	ectors (dual m	nonitor cap	able)				
		 IBM Fire GL2 (extrem (single head; same imag 		Kadapter /	64MB std	and max 120MHz DDF	R-SGRAM / D	B-15 and DVI-D	connectors
	IDE disk controller	Enhanced IDE busmas		/ two coni	nectors on	planar		SECURITY	,
	SCSI disk controller	SCSI models: Adapted 64-bit 33				160MB/sec) /) / one channel 15 dev	, Cover k	ey lock	
	SCSI connectors	SCSI models: One 68-	pin internal / c	ne 0.8mm	VHDCI 68	3-pin external connecto	_r • Cover ta	imper detect sv fixed DASD	vitch
	Cables	SCSI models: One 5-d EIDE models: Two EID					Power-co	n password	
	Disk - features	cable to EIDE models: 20.4GB	EIDE disk) FIDE / ATA-10	0 / 7200 ri	nm / 9 ms	read seek /SMART	- Kauhaai	trator password d/mouse passv	
		SCSI models: 18.2GB					Boot sec	quence control hout keyboard	or mouse
	Rack support Chipset	4U ¹⁷ rack mount suppor Intel 850 chip set / MC				ontroller Hub (ICH2)	 Diskette 	boot inhibit and	
		for PCI 2.2 bus, ATA-10	00 ÈIDE, ether	net MAC, I	JŚB, Low	Pin Count Interface /		, disk, serial po	rt, parallel port
	100/10Mbps etherne	Firmware Hub / SMC LI tIntel 82562EM / on plan					I/O cont • Secure	rol access opening	ıs
		LAN Connect Interface support for Wake on LA	/ controller in	ICH2 and	82562EM	/		red in EEPROÑ otection control	
	CD-ROM / diskette	48X-20X4 CD-ROM / C	AV (ATAPI) / k	ootable /	3.5" 1.441	IB diskette drive	Barcode	labels on mos	
	Audio External ports	Soft audio AC '97 v2.1 Serial: Two 9 pin; Para					• IBIVI Sec	curity Solutions	
	Systems mgmt	kybd, mouse, audio line Monitoring and alerting	e in, audio line	out, micr	ophone in	Pov (1) E OE" LILL	1.6", access,	CD-ROM	
	Keyboard / mouse	IBM 104-key keyboard				Bay ② 5.25", HH Bay ③ 3.5", SL	1.6", access, 1", access,		CD-ROM
	Cooling fans	Three varialble speed fa processor) / not redund	ans (power su	oply, rear,		Bay @ 3.5", SL	access.	open	2 diaketta
	Power supply	340 watts / universal / a		.ρ		Bay ⑤ 3.5", SL Bay ⑥ 3.5", SL	1", no acce 1", no acce	ess, open ess, open	diskette 4
		ows 2000 Professional		· fullcizo		Bay ⑦ 3.5", SL ro50 (1.5v) - used by s		*	5
		s® 2000 Professional _otus® SmartSuite® Milleı	nnium Slot 2	fullsize,	32-bit 33N	Hz, PCI 2.2 (5v)	nu Adi giap	riics adaptei	disk
	 Free license for L Device Drivers at 	∟otus Notes® Client nd Diagnostics CD-ROM	0			Hz, PCI 2.2 (5v) Hz, PCI 2.2 (5v)			Mini-tower
	Software Selection	ons CD-ROM	Slot 5	fullsize,	32-bit 33N	Hz, PCI 2.2 (5v) Hz, PCI 2.2 (5v) - use	d by SCSI ac	lanter (come)	Stealth
	Windows NT 4.0	roduct Recovery CD-RO (SP6) Product Recovery	CD	- ·		sk bays 5,6,7	a by oool ac	apter (some)	black
		overy (Windows 2000 or n service partition)	NT	rotates	out of cha	assis			
	Options	,		⇒ Handle	grip on to	p			A 1 - 1 - 2
		C RDRAM RIMM (4 Dev C RDRAM RIMM (8 Dev			" x W 6.5" nm x W 10	3 D 20.0" 55mm x D 508mm		IITED WARRA	NIY^,3
	256MB PC600 EC0	C RDRAM RIMM (16 De	v) 33L3097		•	(16.4 to 19.1kg)		arts and labor ional Warranty	Service ³
	128MB PC800 EC0	C RDRAM RIMM (4 Dev C RDRAM RIMM (8 Dev) 20L0275		um interna (5 disks x	I SCSI disk capacity: 36.4GB)	On site,	8 am through	5 pm,
	256MB PC800 EC0 IBM 4Ux20D Towe	C RDRAM RIMM (16 De r-to-Rack Kit	v) 20L0277 09N4300		able left s	ide panel y via F2 at startup		ough Fri exclud siness day res	•
	IBM 30GB ATA-100	DEIDE HDD	00N8203 00N8205	• SCSIS	elect via C	TRL+A at startup		n site warranty	
	IBM 36.4GB 7200rp	m Ultra160 SCSI HDD m Ultra160 SCSI HDD	00N8206	Product startup		y Pgm via F11 at		options:9	W V 24 br
	IBM 36.4GB 10K UI IBM 18.2GB 15K UI		00N8209 19K0658	Adv Cc	onfig Powe	r Interface (ACPI) 1.0 I Manager™ enabled		response, 7 da rranty maintena	-
	IBM 9.4GB DVD-RA	AM (black)	10K3561		oni Conirc 3-compliar		available	•	
	IBM 250MB Zip Dri		33L5020 00N8078					x 7 day¹² teleph ic, and Interne	
	IBM P96 Color Mor	nitor (black)	655163N				electi on	io, and interfle	гзаррогі

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IBM® Type-model Processor	GHz¹ Memory Disk and	SCSI rpm adapter	CD-ROM	Graphics adapter and r	nemory	Slots x bays Ethernet	Preload ⁷	Available date
6849-31U Pentium 4 6849-32U Pentium 4 6849-33U Pentium 4	11.7 256MB 40.0GB² EIDI 1.7 512MB 18.2GB Ultra 1.7 512MB 18.2GB Ultra 1.7 512MB 18.2GB Ultra 1.7 512MB 18.2GB Ultra 1.7 512MB 18.2GB Ultra	160 10K 29160LP 160 10K 29160LP 160 10K 29160LP	48X-20X 48X-20X 48X-20X	Millennium G450 Millennium G450 NVIDIA™ Quadro2 MXF ATI® Fire GL2	16MB 16MB 32MB 64MB	6x7 10/100 6x7 10/100	2000 or NT 2000 or NT 2000 or NT 2000 or NT	May 2001 May 2001 May 2001
Processor L2 cache Implementation SMP support	Intel® Pentium® 4 1.7GHz 256KB std and max / at p Processor and L2 cache in heat sink), four RIMM sock No SMP support	orocessor speed n Pin Grid Array (PG	GA) / mother	board contains one Inte				and
Memory - std / max Memory - features	256 or 512MB std / 2GB 256MB models: Two 8D ECC memory controller two RIMMs installed (one all installed RIMMs must b	128MB PC800 RIM and RIMMs / four per channel) / CR	Ms; <i>512M</i> 184-pin go IMMs in tw	<i>B models:</i> Two 16D 25 ld-plated RIMM socket o sockets / supports PC	6MB Pos s (two p 2600 or	C800 RIMMs / per channel) / PC800 RIMMs	(not PC70	
Graphics controller (one of following)	Matrox® Millennium G4 dual RAMDAC [360/232 NVIDIA Quadro2 MXR dual RAMDAC [350/150 ATI Fire GL2 (extreme 3 300MHz RAMDAC / single ATI Fire GL4 (extreme 3 RAMDAC [300/135MHz]	MHz] / dual head: (advanced 3D) / AC MHz] / dual head: 3D) / AGP 4X adap gle head: 1920x120 3D) / AGP 4X adap	2048x1536; GP 4X adap 2048x1536; ter / IBM G 00x16M at 7 ter / IBM G	x16M at 70Hz and 1600 ter / NV11GL GPU / 32 x16M at 75Hz and 128 x1000-RT1000 GPUs / 76Hz / DB-15 and DVI-I T1000-RT1000 GPUs /	0x1200x MB 183 0x1024x 64MB 1 D conne 128MB	.16M at 85Hz / BMHz SDRAM / .16M at 85Hz / I I20MHz DDR-S ectors (same im .120MHz DDR-	DB-15 and GRAM / nage if both	connectors DVI-I conn used) lual
IDE disk controller SCSI disk controller SCSI connectors Cables Disk - features	Enhanced IDE busmaste SCSI models: Adaptec® 2 SCSI models: One 68-pir SCSI models: Two EIDE EIDE models: 40.0GB EII SCSI models: 18.2GB Ult	29160LP / Ultra160 n internal / one 0.8m p 16-bit LVD SCSI cables (one 2-drop DE / ATA-100 / 720	SCSI (LVD nm VHDCI 6 cable, one p cable to 0 00 rpm / 9 m	0 160MB/sec) / 64-bit 33 8-pin external connector 2-drop EIDE cable CD-ROM, one 2-drop constructions of the construction of th	able to		ı 32-bit slot)	-
Rack support Architecture / chipset	4U ¹⁷ rack mount support v Intel 850 chip set / MCH (ethernet MAC, USB, Low F	Memory Controller	Hub) / I/O C					
10/100 Mbps ethernet Intel 82562EM / on planar / 10BaseT, 100BaseTX / full duplex / RJ-45 port / LAN Connect Interface / controller in ICH2 and 82562EM / support for Wake on LAN™, Preboot eXecution Envir (PXE) 48X-20X⁴ CD-ROM / CAV (ATAPI) / bootable / 3.5" 1.44MB diskette drive Audio Soft audio AC '97 v2.1 controller via ICH2 / internal speaker (use of audio line out requires powered speakers) External ports Serial: Two 9 pin; Parallel: One (EPP, ECP) / IEEE 1284; USB: Two; keyboard, mouse, audio line in/line out, mic in Monitoring and alerting of thermal, fans, and voltage faults Keyboard / mouse Cooling fans IBM 104-key keyboard / IBM three button mouse Three variable speed fans (power supply, rear, processor) / not redundant or hot-swap								
CD-ROM Bay (Bay (Bay (Bay (Bay (Bay (Bay (Bay (340 watts / universal / aut 1 5.25", HH 1.6", access, 2 5.25", HH 1.6", access, 3 3.5", SL 1", access, 3 3.5", SL 1", no access, 3 3.5", SL 1", no access, 3 3.5", SL 1", no access, 1: fullsize, AGP 4X Pro50 (1) - used by std AGP graphi 2: fullsize, 32-bit 33MHz, PC - not available on models 3: fullsize, 32-bit 33MHz, PC 5: fullsize, 32-bit 33MHz, PC 6: fullsize, 32-bit 33MHz, PC - used by SCSI adapter (s	CD-ROM open diskette open 5, open 5, open 6, disk 1.5v) lics adapter Cl 2.2 (5v) with GL4 Cl 2.2 (5v) LANC	res out of ch front stabilized dle grip on to 8.5" x W 6.5" o 42 pounds mum interna 6B (5 disks x ovable left s 6 S estup Utili ISelect via C uuct Recover	zing feet op ' x D 20.0" (16.4 to 19.1kg) al SCSI disk capacity: (36.4GB)	- Fre - Fre - De - Sof - Wir - NT - Dis	PREI soft® Windows® ee license for Lo vice Drivers and ftware Selection ndows 2000 Prod 4.0 (SP6) Prod k-to-Disk Reco NT 4.0 SP6 in hi	tus® Smarts tus Notes® d Diagnostic s CD-ROM oduct Recove very (Windo	Suite® Client es CD rery CD ry CD ws 2000
128MB PC600 ECC 256MB PC600 ECC 64MB PC800 ECC 128MB PC800 ECC 256MB PC800 ECC 512MB PC800 ECC 512MB PC800 ECC IBM 18.2GB 7.2K rpr IBM 36.4GB 1.2K rpr IBM 36.4GB 15K Ultr IBM 18.2GB 7.2K rp IBM 9.4GB DVD-RA	ra160 SCSI HDD m ATA-100 EIDE HDD M (black) CD-Rewritable (black) re (black) -to-Rack Kit	33L3095 33L3097 20L0274 20L0275 20L0277 33L3254 00N8206 00N8209 19K0658 22P7157 10K3561 33L5020 00N8078 00N8078 00N8078	r key lock r tamper de re fixed DA's er-on passw nistrator pa oard/mouse sequence c without key tet boot inh ole mouse ette, disk, se ontrol re access c stored in Ef protection of Security Solu	SD ord ord spassword control board or mouse ibit and write-protect orial port, parallel port openings EPROM control for EEPROM utions	> In > O M ne > 3 y up • 4 (: (: 24 el	LIMITED W year parts and ternational Wa n site, 8 am thr on through Fri ext business da year on site wa ograde options I hour respons ServicePac® par ost warranty m vailable I hour x 7 day ectronic, and le	labor arranty Servicuding ay respons arranty services se, Mon-Fri art number 4 taintenance	vice ³ , holidays, e time vice 9-5 1L2735) 24 hr L2741) e services , fax,

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	IBM® Type-model Processor	GHz¹ Memory Dig	sk and rpm	SCSI	M Graphics adapter and memo	Slots x ory bays Ethernet	Preload ⁷	Available date
132 132	6849-40U Pentium [®] 4 6849-41U Pentium 4 6849-42U Pentium 4 6849-44U Pentium 4 6849-50U Pentium 4 6849-51U Pentium 4 6849-52U Pentium 4 6849-54U Pentium 4	4 1.8 256MB 40.0G 1.8 512MB 18.2G 1.8 512MB 18.2G 1.8 512MB 18.2G 2.0 256MB 40.0G 2.0 512MB 18.2G 2.0 512MB 18.2G	GB ² EIDE 7.2K GB Ultra160 10K GB Ultra160 10K GB Ultra160 10K GB EIDE 7.2K GB Ultra160 10K GB Ultra160 10K	None CD 29160LP CD 29160LP CD 29160LP CD None CD 29160LP CD 29160LP CD	Millennium G450 16MB Millennium G450 16MB NVIDIA™ Quadro2 Pro 64 ATI® Fire GL4™.11 128MB Millennium G450 16MB Millennium G450 16MB Millennium G450 16MB ATI® Fire GL4 128MB	6x7 10/100 6x7 10/100 IMB 6x7 10/100	2000 or NT 2000 or NT	Aug 2001 Aug 2001 Aug 2001 Aug 2001 Sep 2001 Sep 2001 Sep 2001
	Processor L2 cache Implementation SMP support	Intel® Pentium® 4 1.3 256KB std and max Processor and L2 ca	8 or 2.0GHz¹ with x / at processor s ache in Pin Grid A	h 400MHz Fror peed Array (PGA) / m		el PGA423 socket (with Pentium	·
	Memory - std / max Memory - features	256MB models: Two ECC memory contr two RIMMs installed	o 8D 128MB PC8 roller and RIMM d (one per channe	800 RIMMs; <i>5</i> l s / four 184-pir el) / CRIMMs ir	nbus) channels / 32 devices 12MB models: Two 16D 256 n gold-plated RIMM sockets n two sockets / supports PC channels / mixing speeds w	MB PC800 RIMMs (two per channel) 600 or PC800 RIMM	/ / //s (not PC70	
	Graphics controller (one of following)	dual RAMDAC [36NVIDIA Quadro2 F 350MHz RAMDACATI Fire GL4 (extr	60/232MHz] / dua Pro (advanced 3E C / single head: 16 reme 3D) / AGP 4	l head: 2048x1 0) / AGP 4X ada 600x1200x16M IX Pro 50 adap	/ AGP 4X adapter / MGA G- 536x16M at 70Hz and 1600x apter / NV15GL 250MHz GPU at 85Hz / DB-15 and DVI-I o ter / IBM GT1000-RT1000 G 16M at 76Hz and 1280x1024	(1200x16M at 85Hz J / 64MB 200MHz D connectors (same in PUs / 128MB 150M	/ two DB-15 o DR-SDRAM / nage if both us IHz DDR-SGF	connectors sed) RAM / dual
	IDE disk controller SCSI disk controller SCSI connectors Cables Disk - features	SCSI models: One SCSI models: One EIDE models: Two EIDE models: 40.00	otec® 29160LP / U 68-pin internal / U 5-drop 16-bit LV EIDE cables (one GB EIDE / ATA-10	Ultra160 SCSI one 0.8mm VH D SCSI cable, e 2-drop cable 00 / 7200 rpm /	ors on planar (LVD 160MB/sec) / 64-bit 3: DCI 68-pin external connecto one 2-drop EIDE cable to CD-ROM, one 2-drop ca 9 ms read seek / S.M.A.R.T 5 ms read seek / S.M.A.R.T	or able to EIDE disk) Γ.	(in a 32-bit sl	ot)
	Rack support Architecture / chipset		ЙСН (Memory Co	ontroller Hub) / I	I/O Controller Hub (ICH2) for ware Hub / SMC LPC47M10			
	10/100Mbps etherned CD-ROM / diskette Audio Rear ports Systems mgmt Keyboard / mouse Cooling fans Power supply	LAN Connect Interfate 48X-20X4 CD-ROM, Soft audio AC '97 v. Two 9-pin serial; two Monitoring and alert IBM 104-key keyboa	ace / controller in , CAV (ATAPI), b 2.1 controller via o USB (Vers 1.1) ting of thermal, fa ard / IBM three bu d fans (power su	ICH2 and 825 ootable / 3.5" 1 ICH2 / internall, parallel, keybans, and voltagutton mouse	full duplex / RJ-45 port / 62EM / support for Wake or 1.44MB diskette drive I speaker (use of audio line loard, mouse, ethernet, audio e faults essor) / not redundant or ho	out requires power line in, audio line o	ed speakers)	
	CD-ROM Bay (Bay (Bay (Bay (Bay (Bay (Bay (Bay	1 5.25", HH 1.6", acce 2 5.25", HH 1.6", acce 3 3.5", SL 1", acce 3 3.5", SL 1", no a 6 3.5", SL 1", no a 6 3.5", SL 1", no a 7 3.5", SL 1", no a 1: fullsize, AGP 4X Protection of the state of the sta	ess, CD-ROM ess, open ess, diskette ess, open eccess, open eccess, open eccess, disk ess, open eccess, disk eccess, disk e	rotates out of Two front states and the Two front states are the Two front states and the Two front states are the Two fr	abilizing feet on top 6.5" x D 20.0" inds (16.4 to 19.1kg) ternal SCSI disk capacity: isks x 36.4GB)	PR Microsoft® Window - Free license for I - Free license for I - Device Drivers a - Software Selecti - Windows 2000 F - NT 4.0 (SP6) Pro - Or NT 4.0 SP6 in	Lotus® SmartS Lotus Notes® (Ind Diagnostic Ons CD-ROM Product Recove Oduct Recove Covery (Windo	Suite® Client cs CD rery CD ry CD ows 2000
	128 MB PC 800 ECC 256 MB PC 800 ECC 64 MB PC 800 ECC 128 MB PC 800 ECC 256 MB PC 800 ECC 512 MB PC 800 ECC IBM 18.2GB 7.2K rp IBM 36.4GB 7.2K rp IBM 36.4GB 10K Ult IBM 40.0GB 7.2K rp IBM 1DE 12X/8X/32 IBM 20/40GB 8mm IBM 250MB Zip Driv IBM 4Ux20D Tower IBM P260 Color Moi	OPTIONS C RDRAM RIMM (4 E C RDRAM RIMM (8 E C RDRAM RIMM (16 C RDRAM RIMM (4 E C RDRAM RIMM (4 E C RDRAM RIMM (4 E C RDRAM RIMM (6 E C RDRAM RIMM (6 E C RDRAM RIMM (16 M Ultra160 SCSI HDE TO T	Dev) 20L0274 Dev) 20L0275 Dev) 20L0277 Dev) 33L3348 Dev) 33L3352 Dev) 33L3352 Dev) 33L3254 D 00N8205 D 00N8205 D 22P7157 Ck) 10K3785 ack) 01K1325 00N8078 09N4300 655263N	Cover key lo Cover tampe Secure fixed Power-on pa Administrato Keyboard/mc Boot sequen Boot without Diskette boo Disable mou Diskette, disk I/O control Secure acce VPD stored i Write protect IBM Security	or detect switch DASD Issword In password In password In password Issword Issw	LIMITED 3 year parts ar International V On site, 8 am t Mon through F next business 3 year on site v upgrade option 4 hour respon (ServicePac Post warranty available 24 hour x 7 day electronic, and	Varranty Servine Account of the Acco	holidays, e time vice 9-5 1L2735) 24 hr 1L2741) e services

IIM IntelliStation® M Pro (6850)

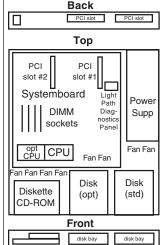
IBM® Type-model Qty x Pro	L2 ocessor cache Memory	Disk and rpm	Disk controllers CD-ROI	VI Graphics adapter and me	Slots x mory bays Preload ⁷	Available date
6850-21U 1 x Xeo 6850-22U 1 x Xeo	on 1.5 256KB 256MB 4 256KB 256MB 4 256KB 256MB 4 256KB 256MB 4 256KB 512MB	8.2GB Ultra 160 10K 8.2GB Ultra 160 10K	Ultra160, EIDE CD Ultra160, EIDE CD Ultra160, EIDE CD Ultra160, EIDE CD Ultra160, EIDE CD	Millennium G450 16MB Millennium G450 16MB Millennium G450 16MB NVIDIA™ Quadro2 Pro 6 ATI® Fire GL4™.11 128 N	6x9 2000 6x9 2000 6x9 2000 64MB 6x9 2000	Aug 2001 Aug 2001 Aug 2001 Aug 2001 Aug 2001
Positioning Processor L2 cache Implementation SMP support	Ultimate workstation per 1 x Intel® Xeon™ 1.5 or 256KB L2 cache / on die Processor and L2 cache connector, five PCI slots 2-way SMP via identica	1.7GHz¹ with 400MHz of Xeon / at process in Pin Grid Array (Po one AGP Pro slot, into	z Front Side Bus or speed / no L3 cache GA) / motherboard cont	ains two Intel Socket-603	sockets, one memo	ry card
Memory	/8 slot memory card with (MRH-R) converts each	n four RDRAM channe channel into two cha and RIMMs / 184-pin	els and max of 8x512M annels (2x2=4 channel gold-plated RIMM sock	DRAM (Rambus) channel B=4GB / each 82803 Mer s total) / kets / supports PC800 RIM	nory Repeater Hub	ach channel
Graphics controller (one of following)	 dual RAMDAC [360/23 NVIDIA Quadro2 Pro 350MHz RAMDAC / si ATI Fire GL4 (extreme 	2MHz] / dual head: 204 (advanced 3D) / AGP (ngle head: 1600x1200 (3D) / AGP 4X Pro 50	48x1536x16M at 70Hz a 4X adapter / NV15GL 2 0x16M at 85Hz / DB-15 adapter / IBM GT1000-	ox MGA G450C GPU / 16 and 1600x1200x16M at 85I 50MHz GPU / 64MB 200N 5 and DVI-I connectors (sa RT1000 GPUs / 128MB 1 I 1280x1024x16M at 75Hz	Hz / two DB-15 conne MHz DDR-SDRAM / me image if both use 50MHz DDR-SGRAN	ctors ed) // dual
SCSI controller SCSI connectors IDE cables EIDE controller Disk - features	Internal Port A: 68 pin (External Port B: 68-pin : EIDE and SCSI models: 6 Enhanced IDE / ATA-100	attaches 6-drop 16-bit SCSI port on rear (con one 2-drop IDE ATA-33) with two channel sup	t LVD cable to SCSI dis inected by 1-drop 16-bit cable (for CD-ROM); E. port / integrated in I/O C	B/sec) / on planar / 64-bit k [cable std on SCSI mod it LVD cable to conn on pla IDE models: one 2-drop AT Controller Hub (ICH2) 40GB / 7200 rpm / 8.7 m	els, not EIDE models anar [cable on all mo 'A-66/100 cable (to di	odels]) sk)
Rack support Chipset	4U ¹⁷ rack mount support Intel 860 chipset / 8286 Controller Hub (ICH2) for controller (P64H) / 8280	0 MCH (Memory Con r PCI 2.2 bus, ATA-10	troller Hub) / two 82803 00 EIDE, ethernet MAC	3AA Memory Repeater Ho C, USB, Low Pin Count Into C interface	ubs (MRH-R) / 8280 ⁻ erface / 82806AA 64	1BA I/O -bit PCI
Audio	Intel 82550 / on planar LAN Connect Interface support for Wake on LA CD-ROM: 48X-20X ⁴ / C Soft audio AC '97 v2.1 c internal mono speaker Serial: two 9-pin; Parall mouse, audio line in, au Monitoring and alerting IBM 104-key keyboard (Five variable speed fans one in power supply) / n 480 watts / universal / a Bay ① 5.25", HH 1.6", 3 Bay ② 5.25", HH 1.6", 3 Bay ③ 3.5", SL 1", 1 Bay ⑤ 3.5", SL 1", 1 Bay ⑥	10BaseT, 100BaseT (controller in ICH2 ar N®, Alert on LAN™, P AV (ATAPI) / bootable controller via ICH2 / A buse of audio line out el: one (EPP, ECP) / I dio line out, mic in of thermal, fans, volta black) / IBM three-but (two for processors, o ot redundant or hot-su access, open access, std CD-RO access, diskette no access, open (disk no access, o	X / full duplex / RJ-45 nd 82550 / rreboot eXecution Envie; Diskette: 3.5" 1.44h nDI 1885 codec / requires powered spe EEE 1284; USB: two; age faults, and chassis atton mouse (black) ne for chassis, one for wap Mini tower Stealth bla Swinging of bays 1 to 3 c only) c only) c only) c only) c only) c only) - used by AGP adapter	r (PXE) MB drive akers) keyboard, s intrusion PCI cards, ack color cloor covers 3 Microsoft® - License - Device I - Software - Window - Disk-to-I	Imper detect switch ixed DASD in password trator password ind/mouse password quence control hout keyboard or moboot inhibit and otect	efessional ofessional ofessional offessional offessional offessional offessional offessional offessional
128MB PC800 E0 256MB PC800 E0 512MB PC800 E0 IBM 36.4GB 10K L IBM 73.4GB 10K L IBM 18.2GB 15K L IBM 40.0GB 7.2K IBM 9.4GB DVD-F IBM 12X/8X/14-32 IBM 4Ux20D Tow IBM P260 Color M	KB Proc Upgrade CC RDRAM RIMM (4 De CC RDRAM RIMM (8 De CC RDRAM RIMM (16 DE CC RDRAM (16 DE CC ROBERT (16 DE	24P8401 24P8402 24P8402 20L0274 20L0275 EV) 20L0277 EV) 33L3254 00N8209 06P5752 19K0658 22P7157 10K3561 ack) 10K3785 10L7006 655263N PC	aximum internal disk caces: 218.4GB (6 disks DE: 120GB (3 disks x 17.3" x W 8.6" x D 23.7 440mm" x W 217mm x pounds max (26.8kg) emovable left side panonfiguration Manager a CSISelect via CTRL+A dv Config Power Interfacell) 1.1-compliant irred for Manageability IfM) 2.0-compliant MBIOS 2.3-compliant C99A-compliant	x 36.4GB) 40GB) T Interna Interna On site Mon th next bu at startup at prompt ace 3 year Interna On site Mon th next bu 3 year 4 hou 4 hou 24 hou	MITED WARRANT\ coarts and labor tional Warranty Ser , 8 am through 5 pn rough Fri excluding usiness day respons on site warranty ser le options: r response, 7 day x r x 7 day\(^2\) telephon nic, and Internet su	vice ³ n, holidays, se time vice i 9-5 24 hr e, fax,

III IntelliStation® M Pro (6850) - Fall 2001

IBM® Type-model Qty x Pro	L2 ocessor cache Memory	Disk and rpm	Disk controllers CD-	ROM Graphics ada		Slots x bays Preload ⁷	Available date
6850-30U 1 x Xeo 6850-31U 1 x Xeo 6850-32U 1 x Xeo	on 2.0 256KB 256MB on 2.0 256KB 256MB on 2.0 256KB 512MB on 2.0 256KB 512MB	40GB ² EIDE 7.2K 18.2GB Ultra 160 1 18.2GB Ultra 160 1	Ultra160, EIDE (OK Ultra160, EIDE (OK Ultra160, EIDE (CD Millennium CD Millennium CD NVIDIA™Q	G450 16MB	6x9 2000 6x9 2000	Oct 2001 Oct 2001 Oct 2001 Oct 2001
Positioning Processor L2 cache Implementation SMP support	Ultimate workstation pe 1 x Intel® Xeon™ 2.0GH 256KB L2 cache / on di Processor and L2 cache connector, five PCI slots 2-way SMP via identica	z¹ with 400MHz Fro e of Xeon / at proce e in Pin Grid Array (, one AGP Pro slot, i	ont Side Bus essor speed / no L3 ca (PGA) / motherboard (contains two Intel		ets, one memo	ry card
Memory	256 or 512MB std / 4G channel / 8 slot memor (MRH-R) converts each ECC memory controller all installed RIMMs mus	y card with four RD channel into two c and RIMMs / 184-p	PRAM channels and n channels (2x2=4 char in gold-plated RIMMs	nax of 8x512MB= nnels total) / sockets/supports	-4GB / each 8280	03 Memory Rep	
Graphics controller (one of following)	Matrox® Millennium (dual RAMDAC [360/23 NVIDIA Quadro2 Pro 350MHz RAMDAC / s ATI Fire GL4 (extreme RAMDAC [300/135MH])	32MHz] / dual head: 2 (advanced 3D) / AG ingle head: 1600x12 3D) / AGP 4X Pro 5	2048x1536x16M at 70 BP 4X adapter / NV150 200x16M at 85Hz / DI 50 adapter / IBM GT10	Hz and 1600x1200 GL 250MHz GPU / 3-15 and DVI-I co 000-RT1000 GPU:	0x16M at 85Hz / tw / 64MB 200MHz D nnectors (same in s / 128MB 150MH	vo DB-15 conned DDR-SDRAM / nage if both use Iz DDR-SGRAN	ctors ed) 1 / dual
SCSI controller SCSI connectors IDE cables EIDE controller Disk - features	Adaptec® AIC-7899 / d Internal Port A: 68 pin External Port B: 68-pin EIDE and SCSI models: Enhanced IDE / ATA-10 SCSI models: 18.2GB U	(attaches 6-drop 16- SCSI port on rear (c one 2-drop IDE ATA- 0 with two channel s	-bit LVD cable to SCS connected by 1-drop 1 -33 cable (for CD-ROM support / integrated in I	I disk [cable std or 6-bit LVD cable to); <i>EIDE models:</i> or /O Controller Hub	n SCSI models, n o conn on planar [ne 2-drop ATA-66/ (ICH2)	ot EIDE models cable on all mo /100 cable (to dis	dels]) sk)
Rack support Chipset	4U ¹⁷ rack mount suppor Intel 860 chipset / 8286 Controller Hub (ICH2) fc controller (P64H) / 8280	60 MCH (Memory C or PCI 2.2 bus, ATA	controller Hub) / two 8: -100 EIDE, ethernet N	/IAC, USB, Low P			
Audio External rear ports Systems mgmt	10/100 ethernet on plan RJ-45 port / LAN Conne support for Wake on LA CD-ROM: 48X-20X ⁴ / C Soft audio AC '97 v2.1 c internal mono speaker (Serial: two 9-pin; Parall mouse, audio line in, au Monitoring and alerting IBM 104-key keyboard (Five variable speed fansone in power supply) / mounts in power supply / mounts in	ct Interface / contro N®, Alert on LAN™, AV (ATAPI) / bootak controller via ICH2 / use of audio line out el: one (EPP, ECP) / dio line out, mic in of thermal, fans, volid black) / IBM three-but (two for processors	0 / nvir (PXE) 4MB drive eakers) o; keyboard, sis intrusion	Cover key loc Cover tampee Secure fixed Power-on pas Administrator Keyboard/mo Boot sequenc Boot without Diskette boot write-protect	ouse		
Power supply (I)	one in power supply) / not redundant or hot-swap 480 watts / universal / auto sensing Bay ① 5.25", HH 1.6", access, open Bay ② 5.25", SL 1", no access, open (disk only) Bay ⑤ 3.5", SL 1", no access, open (disk only) Bay ⑥ 3.5", SL 1", no access, op						
128MB PC800 EC 256MB PC800 EC 512MB PC800 EC IBM 36.4GB 10K L IBM 73.4GB 10K L IBM 18.2GB 15K L IBM 40.0GB 7.2K IBM 9.4GB DVD-I IBM 12X/8X/14-32 IBM 4Ux20D Tow IBM P275 (21.0° IBM T540 15" TFT	CC RDRAM RIMM (4 De CC RDRAM RIMM (8 De CC RDRAM RIMM (16 D CC RDRAM RIMM (16 D JItra160 SCSI HDD JItra160 SCSI HDD JItra160 SCSI HDD rpm ATA-100 EIDE HD RAM (black) 2x CD-Rewritable IDE (b	24P8453 ev) 20L0274 ev) 20L0275 ev) 20L0277 ev) 33L3254 00N8209 06P5752 19K0658 D 22P7157 10K3561 black) 10K3785 10L7006 (black) 6552U3N ek) 9511AG4	Maximum internal discs: 440.4GB (6 ctrick EIDE: 120GB (3 disc) H 17.3" x W 8.6" x Etrick H 440mm" x W 217 ctrick EIDE: 120mm x (26 ctrick Error Mana SCSISelect via CTF Adv Config Power I (ACPI) 1.1-compliar Wired for Manageat (WfM) 2.0-compliant SMBIOS 2.3-compliant	disks x 73.4GB) sks x 40GB) 0 23.7" mm x D 603mm 8kg) panel ger at startup tL+A at prompt nterface nt	⇒ 3 year parts □ Internationa → On site, 8 ar Mon through next busine ⇒ 3 year on si upgrade opt • 4 hour res (ServicePa • 4 hour res (ServicePa ≈ 24 hour x 7	Il Warranty Sen through 5 pm h Fri excluding ss day respons te warranty se tions ⁹ : ponse, Mon-Fr c [®] part number ponse, 7 day x c part number 3	rvice ³ 1, holidays, se time rvice i 9-5 41L2737) 24 hr 0L9186) e, fax,

IIM IntelliStation® R Pro (6851)

IBM® Type-model Qn	ty x Processor	Memory D	Disk isk Controlle	CD	Graphics	Video in standar	d Ethernet	Mech	Slots x bays	os	Available date
6851-11U 1 x Penti 6851-20U 1 x Penti	um® III 1.13GHz¹/133 um III 1.13GHz/133 um III 1.26GHz/133 um III 1.26GHz/133	256MB 18 256MB 20	2GB Ultra160 4GB EIDE	CD CD	Matrox G200 MM Matrox G200 MM Matrox G200 MM Matrox G200 MM	S NTSC S NTSC	2 x 10/100 2 x 10/100	1U rack 1U rack	2x4 2x4	DOS DOS DOS DOS	July 2001 July 2001 Aug 2001 Aug 2001
Processor Upgrade SMP support Implementation L2 cache	Intel® Pentium® III 1. 1.13GHz models can 2-way SMP via identi Processor and L2 cad 512KB std and max /	be upgrade cal process he in Flip-C	d to 1.26GHz or / both VRM: nip Pin Grid Ar	s inte	grated on planar	el PGA370	O sockets / to	erminato	r in emp	oty soc	ket
	256MB std / 4GB max SDRAM / 133MHz /									nt	
Graphics controller	Graphics controller • Matrox® G200 MMS / four monitor support implemented via 2 proprietary LFH-60 connectors on back of adapter / two std cables attach to each LFH-60 connector/ one cable has two DB-15 analog connectors / another cable has two DB-15 analog connectors and a composite video-in RCA connector / 32-bit PCI adapter / 32MB (8MB per monitor) SGRAM / 250MHz RAMDAC / integrated TV tuner (CATV tuner in) / supports NTSC video standard / max of 1920x1200 • Disabled by BIOS: SVGA / PCI bus / S3® Savage4Pro / 8MB SDRAM std and max / DDC2B / on planer										
	All: Adaptec® AIC-7 All: Internal 68-pin of All: Enhanced IDE / x0U: one 2-drop IDE x1U: one 1-drop IDE one 1-drop IDE	connector / I ATA-33 / two cable to two it LVD cable	no external SC connectors o disk bays (one from internal 6	CSI con plai n plai usec 8-pin	onnector nar I)				egrated	on pla	anar
Disk	x0U:20.4GB ATA-10				A.R.T. ¹⁵ / <i>x1U:</i> 18.2	GB Ultra1	60 SCSI, 10	0K rpm, 5	.2ms re	ad, S.N	Л.A.R.T.
Architecture and chipsets ServerWorks® ServerSet III LE chip set / NB6635 North Bridge 3.0LE (the North Bridge has two peer PCI buses: (1) PCI Bus 0, 32-bit 33MHz, South Bridge, Super I/O, graphics, 2 x ethernet; (2) PCI Bus 1, 64-bit 33MHz, SCSI controller, two 64-bit PCI slots) / IB6566 OSB4 rev B2 South Bridge for IDE, USB, ISA bus for Service Processor and Super I/O National Semiconductor® PC97317VUL (diskette, parallel, serial, keyboard, mouse) BIA 19" Rack (1U") / rack-mount only / supported in IBM NetBAY™ Rack products (rack requires vented front door) Front indicators/switches include Power, Reset, Console Select, Power LED and Fault/info LED											
	2 x Intel 82559 ether capability and load be two RJ-45 connector 24X-10X ⁴ CD-ROM, (<i>No support:</i> Advance Light Path Diagnos	alancing su s on rear / s CAV (ATAPI) ed System N	oport through supports PXE , bootable, IDI Igmt Processo	the c 2.0 B E / 3.5 or / or	onnection of both oot Agent / Wake 5" 1.44MB diskette n planar / PowerP	ethernet on LAN® drive C 403GA	ports to the support	same L	AN seg ans, an	ment /	er supply
Audio Ports	16-bit audio / PCI ada Serial: One 9-pin (jun USB: Two ports (Ver	nper selecta	ble for COM1/	Mgmi	t Processor shared	l, COM2,	or Mgm̀t Pro				
Console interconnect	Cable Chain Techno console cable (the vi connector, and DB-1	deo connec	tor is disabled								
Security	Power-on password password, read-only						oot / system	ns mgmt	security	y (user	log-in
Software Keyboard / mouse Cooling fans Power supply	DOS 2000 license in Application CD-ROM 104-key keyboard (b Eight fans (four for p two for disk(s) and pl 200 watt / universal	and Matrox lack) / 3-bu rocessor(s) lanar, two fo	G200 CD-RO ton mouse (b and planar, or power supp	OM lack) y)	Pent 128M 256M 512M pport 1GB	ium III 1.2 //B SDRAI //B SDRAI //B SDRAI SDRAM I	3GHz/133M 6GHz/133M M ECC DIM M ECC DIM M ECC DIM ECC DIMM	1Hz/512K M 133MF M 133MF M 133MF 133MHz	B Proc Iz (RDI Iz (RDI Iz (RDI (RDIMI	Upg MM) MM) MM)	25P2835 25P2836 10K0018 10K0020 10K0022 33L3326
KVM extender ¹⁸	Monitor, keyboard, m 500 feet from system extender / contact Al Technologies® at ww	via a 3rd p MuletHotkey w.wey.ch, F	arty rack mou ® at amulet-h	nted otkey arago	KVM .com, Wey nav.com 36.4 73.4 18.2 IBM	GB 10K U GB 10K U GB 15K U	0 EIDE HDD Itra160 SCS Itra160 SCS Itra160 SCS 8" viewable)	I ĤDD (M I HDD (M I HDD (M	odel x1 odel x1 odel x1	U) U)	22P7157 00N8209 06P5752 19K0658 655263N



Bay ① 3.5", UltraSlim 0.8", access, std diskette Bay ② 5.25", UltraSlim 0.8", access, std CD-ROM Bay ③ 3.5", SL 1", Bay ④ 3.5", SL 1", access, std disk access, open

Slot 1: fullsize, 64-bit 33MHz PCI 2.2 (5v) - used by graphics adptr Slot 2: halfsize,64-bit 33MHz PCI 2.2 (5v) - used by sound adapter

- Stealth black
- → H 1.72" (1U) x W 17.3" x D 25.7"
 → 26 to 28.4 lbs (minimum to maximum configuration)
- Setup Program is available by pressing F1 at startup
- ⇒ PC-Doctor diagnostics is available by pressing F2 at startup
 ⇒ SCSISelect near startup by pressing CTRL+A
- ⇒ PXE Bullet Agent near startup by pressing CTRL+S
 ⇒ DMI 2.1 and Wired for Management 1.1a-compliant
- Includes rack mounting kit
- □ Includes two line cords (9 ft 110v cable with NEMA plug and 9 ft universal interrack HV cable with IEC plug)
- Predictive Failure Analysis® on processor(s), voltage regulator modules, memory, fans, power supply, and disk options

All models: Maximum internal disk capacity (model dependent): 146.8GB with two 73.4GB SL SCSI disks or 80GB with two 40GB EIDE disks / supports 15K rpm SCSI disks

LIMITED WARRANTY',3

- 3 year parts and labor
- International Warranty Service³
- On site warranty all 3 years
- All cities in all states
- 8 am-5 pm, Mon-Fri coverage
- Next business day average response time
- 3 year on site warranty service upgrade options:9
 - Mon-Fri coverage, 4 hour average response time
 - 24 hr x 7 day coverage, 4 hour average response time
- 24 hour x 7 day¹² telephone, fax, electronic, and Internet support

^{*} For a copy of IBM's Statement of Limited Warranty, call 1-800-772-2227 ■ US models announced August 28, 2001; previous models on June 26, 2001

運風 IntelliStation® Z Pro (6894)

IBM®	L3		SCSI			Slots	x	Available
Type-model Qty x Proc		Disk and rpm		CD-RW	Graphics adapter and memor		_	date
6894-12X 2 x Itaniur 6894-14X 2 x Itaniur	n 800 2MB 2GB n 800 2MB 2GB	36.4GB Ultra160 1 18.2GB Ultra160 1	OK 39160 OK 39160	CD-RW CD-RW	Millennium G450 16MB NVIDIA™ Quadro2 Pro 64M Millennium G450 16MB NVIDIA Quadro2 Pro 64MB	B 8x9 8x9	None None Windows® XP 6 Windows XP 6	
Processor L1 and L2 cache L3 cache Implementation	32KB L1 cache / 2MB L3 cache / One Processor B cartridge) processor Be	96KB L2 cache / or inside Itanium cartr soard with two Sock sor and caches / ea	n die of Itan idge / at pro et M 418-pi ach Itanium ory Board sl	ium / at pocessor s n LIF soo powered lots, seve	peed kets / both sockets used by by one Power Pod on Proce on PCI slots, one AGP slot, on	tanium ssor Bo	oard / systembo	ard contains
Memory - std / max Memory - features	Two Memory Bo Board for four-wa	ards standard each	with eight ist install fo	168-pin [Error Checking and Correct DIMM sockets / ships standa al DIMMs at a time / adding	rd with	four DIMMs on	one Memory
Graphics controller (one of following)	dual RAMDAC • NVIDIA Quadro	[300/136MHz] / dua 52 Pro (advanced 3	al head: 192 3D) / AGP 4	20x1440x X adapte	apter / Matrox MGA G450C 0 16M at 75Hz and 1280x1024 r / NV15GL 250MHz GPU / 6 5Hz / DB-15 and DVI-I conne	x16M a 4MB 20	at 75Hz / two DB DOMHz DDR-SD	-15 connectors RAM /
IDE disk controller SCSI disk controller SCSI connectors Cables Disk - features	Adaptec® ASC-3 Two 68-pin interi One 5-drop 16-b	9160 / Ultra160 SC nal (Channel A and	SI (LVD 16 B) / one 50 one 2-drop	0MB/sèc -pin inter EIDE ca	O Firmware Bridge) off the F) / two channel / 64-bit 66Mh nal (Chan A) / two 0.8mm VH ble (attached to CD-RW), and ek / S.M.A.R.T.	Iz PCI DCI 68	adapter -pin external (Ch	ian A and B)
Rack support Architecture / chipset	(SDC), 82463 Me eXpansion Bus (emory Address Con GXB), 82466GX Wi	troller (MAC de eXpansi	C), 82464 on Bus (\	tem Address Controller (SAC GX Memory Data Controller WXB), 82467NX PCI eXpans 32064AA Programmable Inte	(MDC), on Bus	82465GX Grap (PXB), 82468G	nics
I/O Board and ports Rear external ports Front ports Ethernet CD-RW / diskette Audio Systems mgmt	(Version 1.1), tw Serial (9-pin), ke Two USB, audio Intel 82559 10/10 12X/8X/32X ⁴ CD Soft audio AC '9	o chańnel IDE, cha yboard, mouse, two line in, audio line o 00 ethernet / suppo -RW / no diskette o	ssis intrusion USB, ether out ort for Wake drive support cirrus Logic	on, LPC4 ernet (RJ on LAN ^e rt CS4281	for hardware monitor (ADM 7M142 Super I/O (serial, ke-45), two disabled audio por , Alert on LAN™ 2, Preboot PCI audio-codec controller alts	/board, s (no p eXecut	mouse, USB) arallel port) ion Environmen	t (PXE)
Keyboard / mouse Cooling fans Power supply	Four cooling zone 92mm fan and or	ne 60mm fan / exha	sor zone wit lust zone wi	th two 12 th one 80	Omm fans / memory zone wit Omm fans / varialble speed fa / auto sensing / two internal	ns / no	t redundant or h	

CD-RW 00 3 **(5**) 6 7 8

Tower

Stealth black

Bay 1 5.25", HH 1.6", access, CD-RW Bay ① 5.25", HH 1.6", access, CD-H' Bay ② 5.25", HH 1.6", access, open Bay ③ 5.25", HH 1.6", access, open Bay ⑤ 3.5", SL 1", access, open Bay ⑥ 3.5", SL 1", no access, open Bay ⑨ 3.5", SL 1", no access, open Bay ⑥ 3.5", SL 1", no access, open Bay ⑥ 3.5", SL 1", no access, open Bay ⑥ 5.5", SL 1", (Bays 5 to 9 accepts three 1.6 HH disks)

SOFTWARE⁷

- 10X/12X: No operating system or preloaded software included
- 14X/16X: Preloaded with Microsoft® Windows® XP 64-bit Edition
- 14X/16X: Microsoft Windows XP 64-bit Edition Product Recovery CD ♦ All: Enhanced Diagnostics CD-ROM
- All: Compatible with Linux® OS and Microsoft® Windows® XP 64-bit Edition

Slot 1: fullsize,64-bit 66MHz, PCI 2.2 (3.3v), Bus 1 via WXB Slot 2: fullsize,64-bit 66MHz, PCI 2.2 (3.3v), Bus 1 via WXB - used by SCSI adapter Slot 3: fullsize,64-bit 66MHz, PCI 2.2 (3.3v), Bus 1 via WXB Slot 4: fullsize,64-bit 66MHz, PCI 2.2 (3.3v), Bus 2 via WXB

Slot 5: fullsize,64-bit 66MHz, PCI 2.2 (3.3v), Bus 2 via WXB

Slot 6: fullsize, 64-bit 33MHz, PCI 2.1 (5v), Bus 0 via PXB Slot 7: fullsize, AGP 4X Pro110 (1.5v) via GXB - used by std AGP graphics adapter Slot 8: fullsize,64-bit 33MHz, PCl 2.1 (5v), Bus 0 via PXB

SECURITY

- Cover key lock
- Cover tamper detect switch
- Secure fixed DASD
- · Power-on password
- Administrator password
- Keyboard/mouse password
- Boot sequence control
- Boot without keyboard or mouse
- · Diskette boot inhibit and writeprotect
- Disable mouse
- Disk, serial port I/O control
- Secure access openings
- VPD stored in EEPROM
- Write protection control for EEPROM

OPTIONS

1GB (4 x 256MB) PC100 ECC SDRAM RDIMM Kit 33L3258 2GB (4 x 512MB) PC100 ECC SDRAM RDIMM Kit 33L3260 4GB (4 x 1GB) PC100 ECC SDRAM RDIMM Kit 33L3262 IBM IDE 12X/8X/32X CD-RW (black) 10K3785 IBM 18.2GB 10K Ultra160 SCSÌ HDD 00N8208 IBM 36.4GB 10K Ultra160 SCSI HDD 00N8209 IBM Netfinity Gigabit Ethernet Adapter 19K4401 PCI Ultra160 SCSI Adapter (Adaptec 39160)
IBM G96 19" FST (17.9" viewable) Monitor (black)
IBM P96 19" FD (17.9" viewable) Monitor (black)
IBM P260 21" FD (19.8" viewable) Monitor (black) 19K4646 65494AN 655163N 655263N IBM P76 17" FD (16" viewable) Monitor (black) 655063N IBM T85A 18.1" TFT Flat Panel Monitor (black) 9519AG1 Radial Arm 19K4464

- Maximum internal SCSI disk capacity:
- 182GB (5 disks x 36.4GB)

 H 18" x W 10" x D 25.4"

 84 pounds (38.8kg)
- Removable right side panel
- Configuration Manager at startup
- EFI Shell Utility at startup
- SCSISelect via CTRL+A at prompt
- Adv Config Power Interface (ACPI) 1.0
- Wired for Manageability (WfM) 2.0-compliant

SMBIOS 2.3-compliant PC99A-compliant

LIMITED WARRANTY*,3

- 3 year parts and labor
- International Warranty Service³
 - On site, 8 am through 5 pm, Mon through Fri excluding holidays. next business day response time
- 3 year on site warranty service upgrade options:9
 - 4 hour response, Mon-Fri 9-5 (ServicePac® part number 41L2735)
 - 4 hour response, 7 day x 24 hr (ServicePac part number 41L2741)
- 24 hour x 7 day¹² telephone, fax, electronic, and Internet support

- MHz and GHz only measures microprocessor internal clock speed; many factors also affect application performance.
- MB/GB/TB = 1 million/billion/trillion bytes when referring to storage capacity. Accessible capacity is less.
- For a copy of IBM's Statement of LImited Warranty, call 1 800 772-2227. Telephone support may be subject to additional charges. Copies available upon request. For onsite service, customer may be asked certain diagnostic questions before a technician is sent. Limited warranty includes International Warranty Service in those countries where this product is offered
- 4 CD and DVD drives list maximum rates; rates are variable and are often less than the maximum.
- Asset ID allows your IntelliStation to be "scanned" by various radio frequency devices supplied by independent companies. Asset ID is intended for use only with radio frequency equipment that meets ANSI/IEEE C95.1 1992 RF radiation limits.
- ⁷ Some software may differ from its retail version (if available), and may not include user manual or all program functionality. Software license agreements may apply.
- Biskettes and hard copy documentation available at extra charge.
- ⁹ These repair and exchange services are available for machines normally used for business, professional or trade purposes rather than personal, family or household purposes. Subject to IBM ServicePac Maintenance Service Agreement. 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. Service levels are response time objectives and are not guarantees; service levels may exclude some holidays. On-site service provided after IBM attempts to resolve the problem. For critical service requests, a service technician is scheduled to arrive at your location within two hours, four hours, or the next business day (depending on service) after remote problem determination is completed. For the 9x5x4 service, calls dispatched after 1:00pm local time can expect the service technician to arrive by the

morning of the following business day. For non-critical service requests, a service technician will arrive by the end of the following business day. If a machine problem turns out to be a Customer Replaceable Unit (CRU), IBM will express ship the part to you for quick replacement. External peripherals require their own separate service coverage; they are not covered under the attached machine's ServicePac. Service activation is required immediately following purchase. For failing non-IBM machines, customer must provide replacement part unless IBM has a Technical Support Agreement with the manufacturer. Service does not cover accessories, supply items and certain parts such as batteries, frames and covers. For information on IBM ServicePac for Warranty and Maintenance Options, visit www.ibm.com/ services/its/us/servicepac.html. For a Worldwide SevicePac product matrix, visit www-1.ibm.com/services/its/us/ source/spacpmww.pdf.

- SystemXtra is available to commercial and state and local government customers with valid credit. Leasing is based on a minimum qualifying level of \$1,000 of IBM Personal Systems Group hardware. Program is subject to change without notice. Additional terms, conditions and limitations may apply. IBM Global Financing offerings are made available through IBM Credit Corporation in the US and other IBM subsidiaries and divisions worldwide.
- ¹¹ Fire GL1, Fire GL2, and Fire GL4 are trademarks of ATI Technologies, Inc., and are used under license.
- ¹² Response times may vary. May exclude some holidays.
- ¹⁴ Requires Wake on LAN-enabled ethernet or Token-Ring adapter which may not be standard on each model and are sold separately. Requires separate Internet access account, not included.
- ¹⁵ S.M.A.R.T. is defined as Self-Monitoring, Analysis and Reporting Technology.
- ¹⁶ Requires Alert on LAN-enabled ethernet or Token-Ring adapter which may not be standard on each model and are sold separately.
- ¹⁷ A single "U", or rack unit, is 1.75" or 44.45mm.
- ²⁰ In the Intel naming convention, E denotes Advanced Transfer Cache; B denotes 133MHz Frontside Bus.



²¹ IBM makes no warranties, express or implied, regarding non-IBM products. Any support and warranties will come from the third-party vendor, not IBM.

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