IBM ThinkPad® 770X - withdrawn

IBM® ThinkPad®:	770X	770X	770X	770X	770X (AAP)
Processor	**Intel® Mobile Pentium® II 300MHz**[1] / 66MHz system bus				
Processor features	No upgrade / processor, L2 cache, and MTXC (North Bridge) on Mobile Module				
L2 cache	**512KB** / write-back / 4 way set associative/ sync pipelined burst / ECC / 150MHz				
Diskette (removable)	3.5" 1.44MB / in encased enclosure / use in UltraBay™ II or attach externally				
External FDD port	External diskette port (use std cable to attach diskette drive externally)				
CD-ROM (removble)	*Std or option:* **CD-ROM** / 24X-10X[5] speed / bootable / hot swap/ use in UltraBay II				
DVD-ROM (remvble)	*Std or option:* **2X**[5] **DVD drive** / 16X-8X[5] speed / CAV / use in UltraBay II				

Type - model	**9549-71U**	**9549-72U**	**9549-7AU**	**9549-7BU**	**9549-73U**(AAP)
Preload (see side)	**Windows 98**	**NT 4.0**	**Windows 98**	**NT 4,0**	**Blank** (no disk)
DVD or CD-ROM	**DVD-ROM**	**CD-ROM**	**DVD-ROM**	**CD-ROM**	**Optional**
Display (diagonal)	**14.1" TFT XGA (1024x768)**		**13.7" TFT SXGA (1280x1024)**		**14.1" TFT XGA**
Disk (removable)	**8.1GB**[4] / 12ms read / 13ms write				**None**
Avail / withdr date	October 1998 / June 1999				

Memory - std / max	**64MB** / 320MB[21]		**128MB** / 320MB[21]		**64MB** / 320MB[21]
Available sockets	2 available sockets		1 socket (one used by 64MB)		2 available
Memory - features	**SDRAM** / 66MHz / non-parity / 3.3v / sockets accessed by removing screw on bottom 64MB on motherboard and 2 sockets for two JEDEC 144-pin SDRAM SO-DIMMs				

Display - size	**14.1"** (358mm) **color / 1024x768**	**13.7"** (348mm) **SXGA color / 1280x1024**	
Display - colors	**16.7 million simultaneous colors**	**65,536 simultaneous colors**	
Display - techology	**Active Matrix TFT** / 180 degree tilt		
Graphics - controller	**Trident™ CYBER9397DVD / Accelerated Graphics Port** / 64-bit accelerator		
Graphics - arch	**4MB SGRAM** / 83MHz	**8MB SGRAM** / 83MHz	**4MB SGRAM**
Graphics - features	**3D hardware accelerator** / AGP-1x / sideband / **motion compensation** / Direct3D		
Graphics - external	External SVGA to 1280x1024 w/ 64K colors (85Hz) / multiple-monitor support[26]		

Disk (swappable)	Left side / removable via 3 methods: latch, coin screw, security tool / SMART
Disk controller	Enhanced IDE / busmaster / PCI 2.1 / PIIX4E / supports two internal disks / DMA Mode 2, Ultra DMA/33, or PIO Mode 4
Keyboard / Fn keys	Full size alp/num keys / 7 Fn key functions / integrated palm rest
Keyboard slope	Flat keyboard (does not lift up) / rear legs pop up (5.5 degrees slope)
Pointing device	**TrackPoint®** / Press-to-Select / Release-to-Select / dragging / click pace/ center click button for scrolling or magnifying glass / suspension top / spare caps
Dimensions / weight[2]	12.3 x 10 x 2.2" (270 cubic in) / *14.1" mod:* 7.57 lbs (3.43 kg) with battery/diskette *13.7" mod:* 7.63 lbs (3.46 kg) with battery/diskette
Battery - type	Lithium Ion / intelligent / left side
Battery - life[10] (1 batt)	3.5 hrs (7 hrs with second battery in UltraBay II)
Charge time - on / off	2 to 3 hrs / 1.5 to 2.5 hrs
Architecture	**Intel 440BX AGPset** / Intel 82371EB **PIIX4E** (EIDE, ISA Bridge, USB) / TI® PCI1251 for CardBus / AGP for graphics / LM75 digital thermometer PCI 2.1 / 32-bit / 33MHz (EIDE, CardBus, audio, USB, ext expansion) PC97338 Super I/O / ISA (audio, modem, diskette, serial, parallel, infrared, ext exp)
Port replicator	**SelectaBase 770** / PC Card Enabler[18] / PC Card Enabler with Adv EtherJet[18]
Docking Station	**SelectaDock III / SelectaDock I and II**
PC Card Std slots	2 Type 1, 2 Type II, or 1 Type III / **CardBus** / PCMCIA 2.1 / Zoomed Video
USB / serial / parallel	One USB / one 9 pin serial; 16550A / one (IEEE P1284-A, EPP, ECP, bidirectional)
Other features	APM-aware BIOS / AC Adapter barrel, 3 prong (56 watts) / Selectable boot
Video in/out	*Option on DEVA:* Video in/out (composite and S-Video) / SAA7111A NTSC/PAL
MPEG	Software support for MPEG-2[27] because 300MHz with motion compensation
Data/fax modem	**56Kbps** (x2, upgradeable to v.90[8]) / voice-capable / integrated Mwave® 3780i DSP / international programmable DAA
Audio support	CS4239: ISA / SRS 3D audio / FM synthesis / 16-bit playback and record CS4610: PCI / decodes AC3 into stereo / MPEG-2 audio decoding / accel of DirectX Int stereo speakers (front) / 1 watt / rotary volume control (right) / int microphone
Jacks	Input jack (3.5 mm) / output jack (3.5 mm) / full duplex
Infrared ports	Infrared ports (front and back) / IrDA 1.1 compatible / up to 4Mbps
Security	Power-on password / hard disk password / supervisor password / security keyhole / personalization / phillips-head screws on base for battery and UltraBay II bays
Limited warranty[11]	**3 year** - carry-in or ThinkPad EasyServ™[31] Rapid Depot Repair (3 business day average turnaround
Service options[15]	On-site[32], M-F, 8-5, next bus day (72 cities) / serv up to 5 yrs from purchase date

Optional **DVD and Enhanced Video Adapter (DEVA)** 10L1228 provides:

- **MPEG-1, MPEG-2 HHR, and full MPEG-2**[27] **hardware decoder** (audio decoded via software); IBM MPEGCD1M / 2MB SDRAM; 100MHz
- **DVD movie playback**[27] (MPEG-2 decoding; decryption and audio decoding via software)
- **Video in** (composite and SVHS) (NTSC or PAL) for video capture (capture and digitize video from a TV or VCR), still image capture (capture and digitize still photo images), and overlay
- **Video out** (composite and SVHS) to TV (connect to video out port; NTSC or PAL); or record on VCR the screen of ThinkPad
- **Dolby® Digital AC-3**[6] (outputs undecoded Dolby Digital signal from AC-3 connector; CSA8404A); requires external AC3 decoder/amplifier
- **Three ports** - ① video in, ② video out, ③ AC-3

- 5.1GB disk, 12ms, Ultra DMA/33	11J8947
- 8.1GB disk, 12ms, Ultra DMA/33	02K0517
- 14.1GB disk, 12ms, Ultra DMA/33	02K0526
- 2nd Disk Adapter (for 760/770 disks)	11J8836
- **SelectaBase 770**	83H6735
- **SelectaDock III**[18]	3547003
- **PC Card Enabler with EtherJet**™[18]	05K4820
- **760 UltraBay Tray for SD III**	11J8839
- 56 watt AC Adapter (barrel; 3 prong)	83H6739
- **24X-10X CD-ROM Drive** (UltraBy II)	02K0516
- **2X DVD Drive** (UltraBay II)	05K8886
- DVD and Enh Video Adapter (DEVA)	10L1228
- **32MB SO DIMM 3.3v NP SDRAM**	76H0294
- **64MB SO DIMM 3.3v NP SDRAM**	20L0241
- **128MB SO DIMM 3.3v NP SDRAM**	01K1150
- V.90 PC Card Modem with XJACK[24]	10L7393
- ThinkPad 770 Li-Ion Battery	83H6738
- External Battery Charger	11J8985

WINDOWS 98 PRELOAD[16]

- Microsoft® Windows® 98
- Online User's Guide
- ThinkPad Configuration Program
- ThinkPad Utilities
- IBM Registration
- Puma IntelliSync 97
- Norton AntiVirus
- Mediamatics DVD Express
- Artisoft ConfigSafe
- IBM Global Network Dialer
- Netscape Navigator web browser
- ThinkPad on the Net
- Ring Central
- Intel Video Phone
- Ergonomics
- Update Connector
- ◇ Recovery CD-ROM (with boot diskette)
- ◇ Customization CD-ROM (apps/drivers)

WINDOWS NT 4.0 PRELOAD[16]

- Windows NT® Workstation 4.0
- Service Pack 3
- Internet Explorer 4.01
- Advanced NT extensions
- Online User's Guide
- ThinkPad Utilities
- ThinkPad Configuration Program
- Norton AntiVirus (OEM Version)
- IBM Global Network Dialer
- Netscape Navigator web browser
- Ergonomics
- IBM Registration
- SystemSoft CardWizard
- ConfigSafe
- Puma IntelliSync 97
- ◇ Recovery CD-ROM (with boot diskette)
- ◇ Customization CD-ROM (apps/drivers)

All models:
- C: drive is FAT16 of 2GB
- D: drive is FAT32 (if W98) or FAT16 (if NT) of remaining space

The right bay (UltraBay™ II) has LED on release latch to provide status; supports hot swapping:
- std diskette
- std or optional DVD drive
- std or optional CD-ROM
- optional 2nd disk
- optional 2nd battery (requires adapter; cold swap only)
- optional ThinkPad Proven™ VST Zip™ 100 drive or SuperDisk (LS-120) drive (cold swap only)

ThinkPad 770 supported disks:

- **3.2GB** 13ms read/14ms write 17 mm
- **4.0GB** 13ms read/14ms write 12.5 mm
- **5.1GB** 12ms read/13ms write 17 mm
- **8.1GB** 12ms read/13ms write 17 mm
- All 760 supported disks (requires opt adaptr)

PC 97 compliant
DMI 2.0 compliant
DMI instrumentation (thermal monitoring)
ACPI ready (APM enabled)
Wired for Management 1.1a compliant
Wake on LAN® support[28]
Setup Guide, User's Guide, Windows 98 or NT manual
LCD indicator panel
Plug and Play 1.0a
Non-disruptive battery exchange
Standby, suspend, safe suspend, and hibernation modes
ENERGY STAR compliant
International Warranty Service[14]
IBM SystemXtra®,[35]
24 hour / 7 day telephone[30], bulletin board, fax, electronic, and Internet (www.ibm.com/pc/us) support