



Attachment A: Mandatory Specifications

Product Specification for Standard Desktop

Lenovo Response:

Note that additional Lenovo technical specifications are included in Appendix B

Components	Minimum Specifications	Bid Specification
Your Model Name/Number	Please provide	ThinkCentre M52 Tower / 8113-CTO
When was this model introduced?	State date	June 2005
What is the expected market withdrawal date?	State date	October 2006
Processor / Speed	3.0 GHz Pentium IV hyperthreaded	Pentium 4 630 (3.0GHz) Hyperthreaded
Bus Architecture	ISA/PCI/AGP	PCI 2.3 bus
Bus Speed	Provide MHz	800MHz
Expansion Slots	3 - PCI, 1 - AGP, 1- 5 1/4" expansion bay	2 - full length, full height PCI Express slots 2 - full length, full height 32 bit PCI slots 1 - open 5.25" bay
Secondary Cache		2mb L2 cache
Hard Drive	60 GB minimum	80GB 7200 rpm Hard Drive
RAM: Standard	512 MB	512mb RAM
CD-ROM	48X minimum	48x CD ROM Drive
NIC Card (Integrated acceptable)	10/100/1000 Ethernet	10/100/1000 Ethernet on systemboard
Keyboard	USB 104 key, Windows compliant	104 Key Preferred Pro IBM Keyboard (PS/2), Windows compliant
Mouse	2 button scrolling - Optical USB 2.0 (Microsoft or Logitech compatible)	2 button USB Optical Wheel Mouse
Serial Port (16550 UART)/USB2.0	1 each Serial 4 each USB	1 - 9 Pin Serial Port 8 - USB 2.0 Ports
Parallel Port	Bi-directional	1 - Bi-directional Parallel Port
Available Slots	3 minimum	4 Available Slots (2 - PCI Express; 2 - 32 bit PCI)
Dimensions	Provide dimensions	7.0" W X 17.7"D X 17.0"H 178mm W X 450mm D X 432mm H 25.0 to 27.5 lb (11.3 to 12.5 kg)
Video Capability:		Intel Graphics Media Accelerator 950 Uses up to 128mb of system memory
Required Resolution	1024 x 768 minimum	1024 x 768 minimum
Required Colors @ 1024 x 768	65 thousand minimum	65k colors minimum
Colors	16 million colors capable	16M colors capable



Components	Minimum Specifications	Bid Specification
Video Memory	32 MB minimum	Intel Graphics Media Accelerator 950 Uses up to 128mb of system memory
Expandable Memory	State Maximum	4GB RAM maximum
Optional Upgraded AGP Slot Video Card	4x AGP with 128MB	128 Mb ATI Radeon X300SE (option)
Optional Upgraded AGP Slot Video Card	8x AGP with 256MB	Available via 3 rd Party
Graphics interface	PCI/AGP	PCI Express interface
DVI Interface included?		Available via optional Video Card
Multimedia:		
Embedded sound	Sound Blaster compatible	High Definition (HD) audio; Sound Blaster compatible.
Desktop Management Tools:		
Desktop Management Interface	DMI 2.0 Compliant	DMI 2.0 Compliant
Desktop Management/Administrative Software	List product descriptions	Please see Appendix A for list of included ThinkVantage Technologies
Other Management Features	List product descriptions	Please see Appendix A for list of included ThinkVantage Technologies
Operating systems:		
OS Certified: Windows XP Professional	Required	Windows XP Professional with Service Pack 2
Equipment backward compatible with Win NT and 2000		Lenovo tests units for Windows 2000 and provide necessary drivers. Proposed Lenovo hardware is not backwards compatible with Win NT as Intel no longer creates drivers for Win NT.
Warranty – three year parts and labor with State technical staff providing first level labor		3 year parts and labor warranty included in unit price. First level labor by State technical staff via Lenovo Self Maintainer Program.
Warranty – fourth year parts and labor with State technical staff providing first level labor		4 year parts and labor warranty included in unit price First level labor by State technical staff via Lenovo Self Maintainer Program.
Shipping Costs	Must be included in base cost/per unit	Ground Shipping included in unit price
Options:		
Additional Memory SDRAM		256mb upgrade – p/n 73P4970 512mb upgrade – p/n 73P4971 1GB upgrade – p/n 73P4972 2GB upgrade – p/n 73P4973
External 3.5 USB floppy drive		External USB Floppy Drive – p/n 05k9276
Internal 3.5 floppy disk		Internal 3.5 Floppy Drive – p/n 29R8835
CDRW-DVD		Internal 48x/32x/48x/16x CDRW/DVD Combo Drive – p/n 73P3300
Form Factor	Indicate availability of small-form factor, convertible, or mini-tower	Tower form factor. proposed Also available: Small Desktop and Desktop Form Factors



Attachment B: Mandatory Specifications

Product Specification for Power Desktops

Components	Minimum Specifications	Bid Specification
Your Model Name/Number	Please provide	ThinkCentre M52 Tower / 8113-CTO
When was this model introduced?	State date	June 2005
What is the expected market withdrawal date?	State date	October 2006
Processor / Speed (dual Processor capability)	3.8 GHz Pentium IV hyperthreaded	Pentium 4 650 (3.4GHz) Hyperthreaded Faster processors to be supported in 1Q06.
Bus Architecture	ISA/PCI/AGP	PCI 2.3 bus
Bus Speed	Provide MHz	800MHz
Expansion Slots	3 - PCI, 1 - AGP, 1- 5 ¼" expansion bay	2 – full length, full height PCI Express slots 2 – full length, full height 32 bit PCI slots 1 – open 5.25" bay
Secondary Cache		2mb L2 cache
Hard Drive	160GB minimum	160GB 7200 rpm Hard Drive
RAM: Standard	1 GB	1GB RAM
DVD-ROM/DVD-RW Drive		MultiBurner Plus (DVD RW)
NIC Card (Integrated acceptable)	10/100/1000 Ethernet	10/100/1000 Ethernet on systemboard
Keyboard	USB 104 key, Windows compliant	104 Key Preferred Pro IBM Keyboard (PS/2), Windows compliant
Mouse	2 button scrolling - Optical USB 2.0 (Microsoft or Logitech compatible)	2 button USB Optical Wheel Mouse
Serial Port (16550 UART)/USB2.0	1 each Serial 4 each USB	1 – 9 Pin Serial Port 8 – USB 2.0 Ports
Parallel Port	Bi-directional	1 – Bi-directional Parallel Port
Slots	3 minimum	4 Available Slots (2 – PCI Express; 2 – 32 bit PCI)
Dimensions	Provide dimensions	7.0" W X 17.7"D X 17.0"H 178mm W X 450mm D X 432mm H 25.0 to 27.5 lb (11.3 to 12.5 kg)
Video Capability:		128mb DDR ATI Radeon X300
Required Resolution	1280 x 1024 minimum	1024 x 1024 minimum
Required Colors @ 1280 x 1024	65 thousand minimum	65k colors minimum
Colors	16 million colors capable	16M colors capable
Video Memory	128 MB minimum	128mb DDR ATI Radeon X300
Expandable Memory	State Maximum	4GB RAM maximum
Graphics interface	PCI/AGP/PCIe	PCI Express
DVI Interface included?		Available via optional Video Card



Components	Minimum Specifications	Bid Specification
Multimedia:		
Embedded sound	Sound Blaster compatible	MultiBurner Plus (DVD RW) High Definition (HD) audio; Sound Blaster compatible
Desktop Management Tools:		
Desktop Management Interface	DMI 2.0 Compliant	DMI 2.0 Compliant
Desktop Management/Administrative Software	List product descriptions	Please see Appendix A for list of included ThinkVantage Technologies
Other Management Features	List product descriptions	Please see Appendix A for list of included ThinkVantage Technologies
Operating systems:		
OS Certified: Windows XP Professional	Required	Windows XP Professional with Service Pack 2
Equipment backward compatible with Win NT and 2000		Lenovo tests units for Windows 2000 and provide necessary drivers. Proposed Lenovo hardware is not backwards compatible with Win NT as Intel no longer creates drivers for Win NT.
Warranty – three year parts and labor with State technical staff providing first level labor		3 year parts and labor warranty included in unit price. First level labor by State technical staff via Lenovo Self Maintainer Program.
Warranty – fourth year parts and labor with State technical staff providing first level labor		4 year parts and labor warranty included in unit price. First level labor by State technical staff via Lenovo Self Maintainer Program.
Shipping Costs	Must be included in base cost/per unit	Ground Shipping included in unit price
Options:		
Additional Memory SDRAM		256mb upgrade – p/n 73P4970 512mb upgrade – p/n 73P4971 1GB upgrade – p/n 73P4972 2GB upgrade – p/n 73P4973
Optional Upgraded AGP Slot Video Card	4x AGP with 128MB	Included in Unit Price
Optional Upgraded AGP Slot Video Card	8x AGP with 256MB	Available via 3 rd Party
External 3.5 USB floppy drive		External USB Floppy Drive – p/n 05k9276
Internal 3.5 floppy drive		Internal 3.5 Floppy Drive – p/n 29R8835
2 nd . Processor option		Not Available
Form Factor	Indicate availability of small-form factor, convertible, or mini-tower	Tower form factor proposed Also available: Small Desktop and Desktop Form Factors



Attachment C: Mandatory Specifications

Product Specification for Standard Laptops

Components	Minimum Specifications	Bid Specification
Your Model Name/Number		ThinkPad R52 / 1848-CTO
When was this model introduced?	State date	March 2005
What is the expected market withdrawal date?	State date	September 2006
Processor / Speed	Pentium M 1.7 GHz minimum Mobile Chip Set	Intel Pentium-M 740 (1.73GHz) Mobile Intel 915PM Express Chipset
Display	14 " diagonal viewable TFT - active matrix	14.1" diagonal viewable TFT active matrix screen
RAM: Standard	1 GB	1GB RAM
Removable Hard Drive	60 GB minimum	60GB Hard Drive
Ethernet Adapter 10/100/1000 Integrated		10/100/1000 Ethernet on systemboard
DVD/CD-RW		24x/24x/24x/8x CDRW / DVD Combo Drive
Expansion Slots	2 PCMCIA Type II	2 PCMCIA Type II
Secondary Cache	512K minimum	2mb L2 Cache
Keyboard Size	Provide dimensions	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)
Laptop Size	Provide dimensions	12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm Weight with optical drive and battery: 14.1" models: 6.1 lb (2.8kg)
Pointing Device	Specify Integrated Pointing Device	TrackPoint: pointing device, "Press-to-Select," Internet Scroll Bar13, magnifying glass / UltraNav: multi-pointing system / touch pad below keyboard / Tap Zones
External Mouse Port	Required	Attach mouse via USB port
Serial Port (Minimum 16550 UART)/ 2 USB 2.0		Attach serial devices via USB port 2 USB 2.0 ports
Wireless connectivity 802.11 G	Detail Specification	11b/g wireless, Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip
Parallel Port	Bi-directional	1 Bi-directional Parallel Port
Infrared Port	Required	1 Infrared Port
Expandable to		
Video Capability:		
Required Resolution (display)	1024x768	1024 x 768
Required Colors @ 1024 x 768	65 Thousand colors	65k colors
Colors	16 million colors capable via external display	16M colors via external display



Components	Minimum Specifications	Bid Specification
Video Memory	32 MB minimum	ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 32MB GDDR1 memory
Expandable Video Memory	State maximum	64mb maximum
DVI Interface included?		S-video out port
Multimedia Options	Detail options	Multi-Burner Plus Ultrabay Enhanced Drive (p/n 73P3312)
Audio Capability:		
Audio	Sound Blaster compatible	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec; Sound Blaster compatible
Integrated Microphone & Speakers	Required	stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone
External Microphone & Speaker Ports	Required	microphone input jack (3.5 mm; pink) / speaker port (3.5 mm; green)
Modem - Integrated	Hayes compatible 56.6 KB fax/modem	Hayes compatible 56K6 V.90 (V.92-designed29) modem in CDC / Conexant® chipset
Bus Architecture	32 bit PCI	32 bit PCI
Bus Speed	400 MHz FSB	533MHz FSB
Graphics interface	AGP adapter	PCI Express Graphics Interface (faster than AGP)
Battery Life	2-5 hours	Up to 3.6 hours
Maximum Carrying Weight including battery & AC adapter	6 pounds	6.1 pounds with battery
Desktop Management Tools:		
Desktop Management Interface	DMI 2.0 Compliant	DMI 2.0 Compliant
Desktop Management/Administrative Software	List product descriptions	Please see Appendix A for list of included ThinkVantage Technologies
Other Management Features	List product descriptions	Please see Appendix A for list of included ThinkVantage Technologies
OS Certified: Windows XP Standard OS	Required Windows XP Professional	Windows XP Professional with Service Pack 2
Warranty – Three year parts and labor with State Technical Staff providing first level labor. <u>Detail if warranty is carry-in, depot, or cross-ship.</u>		3 year parts and labor warranty included in unit price. On-site warranty. First level labor by State technical staff via Lenovo Self Maintainer Program.
Warranty – fourth year parts and labor with State Technical Staff providing first level labor. <u>Detail if warranty is carry-in, depot, or cross-ship.</u>		4 year parts and labor warranty included in unit price On-site warranty First level labor by State technical staff via Lenovo Self Maintainer Program.
Shipping Costs	Must be included in base cost/per unit	Ground Shipping included in unit price



Components	Minimum Specifications	Bid Specification
Options:		
15" display		ThinkVision L151 15" Flat Panel (p/n 9205AB6)
17" display		ThinkVision L171 17" Flat Panel (p/n 9417AB1)
Higher resolution for 15" and 17" displays, at 1280 x 1024		Yes
3.5" swappable floppy drive		External USB Floppy Drive – p/n 05k9276
Swappable DVD+/RW		Multi-Burner Plus Ultrabay Enhanced Drive – p/n 73P3312
Additional Memory SDRAM		256mb upgrade – p/n 73P3840 512mb upgrade – p/n 73P3842 1GB upgrade – p/n 73P3844
Larger Hard Drives	List options	40GB / 5400 rpm – p/n 08K9816 60GB / 5400 rpm – p/n 73P3357 80GB / 5400 rpm – p/n 09N4273 Portable 40GB USB Hard Drive – p/n 22P7196 Portable 80GB USB Hard Drive – p/n 40Y8726
External Keyboard	List options	IBM Enhanced Performance Keyboard – p/n 73P2620
Ergonomic Keyboard	104 key Windows compliant minimum	Available via 3 rd party
External Mouse	2 button scrolling - Optical USB 2.0 (Microsoft or Logitech compatible)	2 button USB Optical Mouse – p/n 06P4069
Carrying Case Standard	List options	Targus Nylon Carrying Case – 10k0207 Targus Leather Carrying Case – 10k0209
Extra battery		ThinkPad 6 cell battery – p/n 92p1101 ThinkPad 9 cell battery – p/n 92P1102
Extra power pack/ AC adapter		72W AC Adapter – p/n 02k6699



Attachment D: Mandatory Specifications

Product Specification for Tablets

Components	Minimum Specifications	Bid Specification
Your Model Name/Number		ThinkPad X41 Tablet / 1867-CTO
When was this model introduced?	State date	June 2005
What is the expected market withdrawal date?	State date	August 2006
Form Factor: Convertible		Convertible Tablet
Processor / Speed	Pentium M minimum Mobile Chip Set	Intel Pentium-M 758 (1.5GHz) Mobile Intel 915GM Express Chipset
Display	14 " diagonal viewable TFT - active matrix	12.1" (307mm) Super Wide Angle FFS XGA (1024x768) TFT color / anti-reflective and anti-glare protective coatings / 180 nits / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / 8 buttons on display bottom (power, reboot, rotation, utility, Esc, enter, page up/down)
Removable Hard Drive	40 GB minimum	40GB Hard Drive
RAM: Standard	512MB minimum	512mb RAM
CD-RW (can be swappable)	24x minimum	24x/24x/24x/8x CDRW / DVD Combo Drive (p/n 73P3288) via X4 Dock (p/n 250610U) NOTE: Both options included in unit price
Expansion Slots	2 PCMCIA Type II	1 PCMCIA Type II slot
Secondary Cache	512K minimum	2mb L2 Cache
Keyboard Size	Provide dimensions	Standard-size 26 keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stoke / Access IBM button / palm rest
Tablet Size	Provide dimensions	10.8" x 9.5" x 1.14-1.26"; 274mm x 242mm x 29-32mm
Pointing Device	Specify Type of Pointing Device	TrackPoint®, "Press-to-Select," Internet Scroll Bar
External Mouse Port	Required	Use X4 Dock for mouse port
Serial Port (Minimum 16550 UART)/ 2 USB 2.0		Use X4 Dock for serial devices; qty 2 USB 2.0 ports
On-board 80211 G	Detail Specification	11b/g wireless4, Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset
Infrared Port	Required	Infrared Port
Parallel Port	Bi-directional	Use X4 Dock for parallel port
Video Capability:		
Required Resolution (display)	1024x768	1024 x 768
Required Colors @ 1024 x 768	65 Thousand colors	65k colors



Components	Minimum Specifications	Bid Specification
Colors	16 million colors capable via external display	16M colors via external display
Video Memory	32 MB minimum	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz
Expandable Video Memory	State maximum	Up to 128mb by utilizing main memory
DVI Interface included?		No
Multimedia Options	Detail options	Multi-Burner Plus Ultrabay Slim Drive (p/n 73P3342)
Audio Capability:		
Audio	Sound Blaster compatible	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / Sound Blaster compatible
Integrated Microphone & Speakers	Required	Mono speaker / 0.5 watt / volume up, down, mute buttons / internal microphone
External Microphone & Speaker Ports	Required	Microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)
Ethernet Adapter 10/100 Integrated		Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE
Modem - integrated or PCMCIA	Hayes compatible 56.6 KB fax/modem	Hayes compatible 56K6 V.90 (V.92-designed29) modem in CDC / Conexant® chipset
Battery Life	2-5 hours	2.6 hours
Maximum Carrying Weight including battery & AC adapter	6 pounds	Weight: 3.5 lb (1.61kg) with 4 cell battery Does not include optical drive and X4 Dock.
Desktop Management Tools:		
Desktop Management Interface	DMI 2.0 Compliant	DMI 2.0 Compliant
Desktop Management/Administrative Software	List product descriptions	Please see Appendix A for list of included ThinkVantage Technologies
Other Management Features	List product descriptions	Please see Appendix A for list of included ThinkVantage Technologies
OS Certified: Windows XP Professional/Microsoft Windows XP Tablet PC Edition	Required	OS certified: Windows XP Professional/Microsoft Windows XP Tablet PC Edition
Standard OS	Windows XP Professional/Microsoft Windows XP Tablet PC Edition	Windows XP Tablet PC Edition
Bus Architecture	32 bit PCI	32 bit PCI
Bus Speed	400 MHz FSB	400MHz FSB
Graphics interface	AGP adapter	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz



Components	Minimum Specifications	Bid Specification
Warranty – Three year parts and labor with State technical staff providing first level labor. <u>Detail if warranty is carry-in, depot, or cross-ship.</u>		3 year parts and labor warranty included in unit price. On-site First level labor by State technical staff via Lenovo Self Maintainer Program.
Warranty – fourth year parts and labor with State Technical Staff providing first level labor. <u>Detail if warranty is carry-in, depot, or cross-ship.</u>		4 year parts and labor warranty included in unit price. On-site First level labor by State technical staff via Lenovo Self Maintainer Program.
Shipping Costs	Must be included in base cost/per unit	Ground Shipping included in unit price
Options:		
3.5" swappable floppy drive	Detail specifications	External USB Floppy Drive – p/n 05k9276
Additional Memory SDRAM		256mb upgrade – p/n 73P3840 512mb upgrade – p/n 73P3842 1GB upgrade – p/n 73P3844
Larger Hard Drives	List options	40GB / 5400 rpm – p/n 08K9816 80GB / 5400 rpm – p/n 09N4273 Portable 40GB USB Hard Drive – p/n 22P7196 Portable 80GB USB Hard Drive – p/n 40Y8726
External Keyboard	List options	IBM Enhanced Performance Keyboard – p/n 73P2620
Ergonomic Keyboard	104 key Windows compliant minimum	Available via 3rd party
External Mouse	2 button wheel - Optical USB 2.0 (Microsoft or Logitech compatible)	2 button USB Optical Mouse – p/n 06P4069
Carrying Case Standard	List options	ThinkPad X41 Tablet Sleeve – p/n 30R4959
Extra battery		Standard 4 Cell Li-Ion Battery – p/n 73P5167 Extended 9 Cell Li-Ion Battery – p/n 73P5168
Extra power pack/ AC adapter		56W Ultraportable AC Adapter – p/n 02k6880



Attachment E: Optional Specifications

Product Specifications for CRT Monitors

(All categories must be VESA, TCO and Energy compliant)

Components	Standard CRT Monitor			
		17"	19"	20 - 21"
Your Model Name/Number		ThinkVision C170 / 6737P69	ThinkVision C190 / 6739P09	Not Available
When was this model introduced?	State date	November 2005	September 2005	
What is the expected market withdrawal date?	State date	4Q06	4Q06	
Dot/Mask Pitch	Minimum of .28	0.25mm diagonal / diagonal / 0.22 horizontal	0.25mm diagonal / 0.22 horizontal	
Viewable Area:				
Active display area horizontal	State area	12.79"	14.4"	
Active display area vertical	State area	9.6"	10.8"	
Active diagonal display	State area	16.0"	18.0"	
Vertical refresh rate:				
@ 640 x 480	State refresh rate	60Hz	60Hz	
@ 800 x 600	State refresh rate	75Hz	75Hz	
@ 1024 x 768	State refresh rate	75Hz	75Hz	
@ 1280 x 1024	State refresh rate	75Hz	75Hz	
Minimum Resolution:				
17", 19", 20-21" monitors	1280 x 1024	1280 x 1024	1280 x 1024	
Display colors @ min resolution	64K true colors	64K true colors	64k true colors	



Components	Standard CRT Monitor			
		17"	19"	20 - 21"
Physical Controls	Volume, brightness, contrast, position, color, alignment, language	On screen display with digital user controls (5 languages) Picture position, size, shape, and alignment (including pincushion, pincushion balance, trapezoid, parallelogram) Digital brightness and contrast Color tint control, selectable color points (9300K, 6500K, 5000K), and color reset Picture tilt and moire effects Video input level (0.7V or 1.0V) Manual degauss	On screen display with digital user controls (5 languages) Picture position, size, shape, and alignment (including pincushion, pincushion balance, trapezoid, parallelogram) Digital brightness and contrast Color tint control, selectable color points (9300K, 6500K, 5500K), and color reset Picture tilt and moire effects Manual degauss	
Control location	On screen	On screen	On screen	
Dimensions:				
— Width	State width	16.3"	18.0"	
— Height including swivel base	State total height	16.9"	18.4"	
— Depth	State depth	16.5"	18.0"	
Weight	State weight	35.3 lbs	46.8 lbs	
Energy saving features Green standards, sleep mode required		Power management - ENERGY STAR; Environmental Label - TCO 99	Power management - ENERGY STAR; Environmental Label - TCO 99	
Radiation standards	List standards met	Emission - 3MPR-II, FCC-B	Emission - 3MPR-II, FCC-B	



Components	Standard CRT Monitor			
		17"	19"	20 - 21"
Power consumption	State consumption	Power supply - 100-240Vac (universal), 70 watts typical, 50-60Hz	Power supply - 90-264Vac, 100 watts typical, 50-60Hz	
Screen characteristics	Anti-glare, flat screen etc.	17" full flat shadow mask (flat screen) CRT	19" full flat shadow mask (flat screen) CRT	
Interface Compatibility	USB supports, Serial port, etc.	Analog video input	Analog video input	
Standard Warranty length		3 years	3 years	
Warranty replacement/repair	Cross-ship/quick-exchange, or return to depot	Quick Exchange; Replacement normally arrives in two business days, excluding holidays; Lenovo pays all shipping costs for valid warranty claims	Quick Exchange; Replacement normally arrives in two business days, excluding holidays; Lenovo pays all shipping costs for valid warranty claims	
Shipping Costs	Must be included in base cost/per unit	Included in cost per unit	Included in cost per unit	



Attachment F: Optional Specifications

Product Specifications for LCD Monitors

(All categories must be VESA, TCO and Energy compliant)

Components	Standard LCD Monitor	17"	19"	20 - 21"
Your Model Name/Number		ThinkVision L171 / 9417AB1	ThinkVision L190 / 9329AB9	ThinkVision L200p / 6736HC9
When was this model introduced?	State date	July 2005	February 2005	August 2004
What is the expected market withdrawal date?	State date	September 2006	June 2006	February 2006
Dot/Mask Pitch	Minimum of .29	.264mm	.294mm	.255mm
Viewable Area:				
Brightness (nits)	Specify	270 nits	250 nits	250 nits
Contrast Ratio	Specify	500:1	500:1	400:1
Video Response Time (ms)	Specify	8ms	12ms	25ms
Horizontal Viewing Angle	Specify	13.4"	14.8"	16.0"
Vertical Viewing Angle		10.7"	11.8"	12.0"
Active diagonal display	State area	17.0"	19.0"	20.1"
Minimum Resolution:				
17", 19", 20-21" monitors	1280 x 1024	1280 x 1024	1280 x 1024	1280 x 1024
Display colors @ min resolution	64K true colors	64k true colors	64k true colors	64k true colors



Components	Standard LCD Monitor	17"	19"	20 - 21"
Physical Controls	Volume, brightness, contrast, position, color, alignment, language	<p>On screen display with digital user controls (6 languages)</p> <p>Direct access (buttons on front) for auto adjustment and brightness; contrast; image horizontal and vertical position; user color settings (3 preset + 1 user); on screen display (OSD) language selection; menu position; information screen; image setup; image size to show normal or expanded format; reset of geometry and color point to factory default settings; lockable settings</p>	<p>On screen display with digital user controls (6 languages)</p> <p>Direct access (buttons on front) for auto adjustment and brightness / on screen display for contrast, image horizontal and vertical position, user color settings (3 preset + 1 user), language selection, menu position, information screen, image setup, image size to show normal or expanded format, reset of geometry and color point to factory default settings, and lockable settings</p>	<p>On screen display with digital user controls (6 languages)</p> <p>Direct access (buttons on front) for auto adjustment, brightness, and input select; contrast; image horizontal and vertical position; user color settings (3 preset + 1 user); on screen display (OSD) language selection; menu position; display time; information screen; image setup; image size to show normal or expanded format; reset of geometry and color point to factory default settings; lockable settings</p>
Control location	On screen	On screen	On screen	On-screen
Dimensions:				
— Width	State width	14.4"	16.1"	18.4"
— Height including swivel base	State total height	15.0"	16.2"	15.4"
— Depth	State depth	6.4"	8.7"	9.9"
Weight	State weight	10.1 lb	13.4 lb	20.9 lbs



Components	Standard LCD Monitor	17"	19"	20 - 21"
Energy saving features Green standards, sleep mode required		Power management - ENERGY STAR; Environmental Label - TCO 99, RoHS	Power management - ENERGY STAR; Environmental Label - TCO 99	Power management - ENERGY STAR; Environmental Label - TCO 99
Radiation standards	List standards met	Emission - MPR-2 / MPR-3A / FCC Class B	Emission - MPR-2 / MPR-3A / FCC Class B	Emission - MPR-2 / MPR-3A
Power consumption	State consumption	100-240Vac (universal) / integrated (no external brick-like power supply) / 40 watts typical (<2 watts for "active off")	100-240Vac (universal) / integrated (no external brick-like power supply) / 40 watts typical (2 watts for "active off")	100-240Vac (universal) / integrated (no external brick-like power supply) / 65 watts typical (3 watts for "active off")
Screen characteristics	Anti-glare, flat screen etc.	LCD Active Matrix TFT (Thin Film Transistor)	LCD Active Matrix TFT (Thin Film Transistor)	LCD Active Matrix TFT (Thin Film Transistor)
Interface Compatibility	USB supports, Serial port, etc.	Analog video input	Analog video input	Analog video input
Standard Warranty length		3 years (includes backlight)	3 years (includes backlight)	3 years (includes backlight)
Warranty replacement/repair	Cross-ship/quick-exchange, or return to depot	Quick Exchange; Replacement normally arrives in two business days, excluding holidays; Lenovo pays all shipping costs for valid warranty claims	Quick Exchange; Replacement normally arrives in two business days, excluding holidays; Lenovo pays all shipping costs for valid warranty claims	Quick Exchange; Replacement normally arrives in two business days, excluding holidays; Lenovo pays all shipping costs for valid warranty claims
Shipping Costs	Must be included in base cost/per unit	Included in cost per unit	Included in cost per unit	Included in cost per unit



ATTACHMENT G: OPTIONAL SPECIFICATIONS

Product Specification for Standard Workgroup Laser Printer

Components	Target Minimum Specifications	Bid Specification
Your Model Name/Number	Please provide	Lexmark W840dn, 3 Hole Finisher, 2,000 sheet dual input
When was this model introduced?	State date	6-27-2005
What is the expected market withdrawal date?	State date	Not Released
Print Speed	Minimum 32 ppm	50 PPM
First page out	Provide	7 seconds
Processor Speed	Provide MHz	625 MHz
Print Technology	Provide	Laser
Print Quality	1200 dpi	1200x1200 dpi
Memory, Standard	32 MB	256 MB
Memory, Maximum	Provide	768 MB
NIC Card	10/100 Ethernet	10/100 Ethernet
Standard Connectivity	IEEE 1284-compliant bi-directional parallel	Ethernet, USB, Parallel, 1 ISP slot
Paper trays, standard	3	3
Paper trays, maximum	4	6
Input capacity, standard	1,100 sheets	3,100
Input capacity, maximum	3,100 sheets	5,100
Envelope Feeder	10 envelopes	100 multipurpose tray
Output capacity, standard	600 sheets	3,800
Output capacity, maximum	3,600 sheets	3,800
Duplex Printing	Standard	Standard
Paper handling	2000 sheet input tray, stapler/sorter	Yes, with 2000 Sheet Dual Input Tray and 3-Hole Finisher
Media sizes, standard	Card stock, letter, executive, legal, tabloid, envelopes	Letter, Legal, Tabloid, Executive, Envelopes, Card Stock
Media types	Paper, including, but not limited to; plain, pre-printed, letterhead, bond, transparencies, envelopes, and labels.	Plain Paper, Envelopes, Card Stock, Transparencies, Paper Labels,
Monthly duty cycle	150,000 pages minimum	300,000
Print Languages	PCL 6, PCL 5e, PostScript Level 3	PostScript 3, PCL 6, PPDS
Parallel Port	Bi-directional	IEEE 1284 Bi-Directional Parallel
IEEE 1284 6' cable	Required	CABLE NEEDED TO BE ADDED



Components	Target Minimum Specifications	Bid Specification
Dimensions	Provide dimensions	24.3 x 20.5 x 18.7
Included Software	List product descriptions	Printer Driver
Other Management Features	List product descriptions	Lexmark MarkVision Utilities, Internal Web Interface, Telnet
OS Certified: Windows XP Professional compatible	Required	Yes
Warranty – three year parts and labor with State technical staff providing first level labor		Offered
Warranty – fourth year parts and labor with State technical staff providing first level labor		Offered
Options:		
Additional Memory SDRAM		Offered
Additional 500 sheet paper drawer		Offered
Additional 2000 sheet paper drawer		Offered
Additional toner cartridges		Offered
Optional upgrade kit, including scanning, copying and faxing capability		Not available on this unit



Attachment H: Optional Specifications

Product Specification for Standard Individual-User/Small Workgroup Laser Printer

Components	Target Minimum Specifications	Bid Specification
Your Model Name/Number	Please provide	Lexmark W812tn
When was this model introduced?	State date	10-28-02
What is the expected market withdrawal date?	State date	Not Released
Print Speed (letter-size)	Minimum 22 ppm	26 PPM
First page out	Provide	8 Seconds
Processor Speed	Provide MHz	300 MHz
Print Technology	Provide	Laser
Print Quality (resolution)	1200 dpi	1200 Image Quality
Memory, Standard	16 MB	32 MB
Memory, Maximum	at least 144MB; state maximum	288 MB
Optional NIC Card	10/100 Ethernet	10/100 Ethernet
Standard Connectivity	IEEE 1284-compliant bi-directional parallel or USB 2.0-compatible	Ethernet, USB, 1 ISP Slot
Monthly Duty Cycle	10,000 pages	65,000 Pages
Paper trays, standard	1	3
Paper trays, maximum	2	4
Input capacity, standard	200 sheets	650
Input capacity, maximum	500 sheets	1,400
Optional Envelope Feeder	state	Multipurpose Feeder
Output capacity, standard	100 sheets	250
Output capacity, maximum	125 sheets	250
Duplex Printing	optional	Optional
Paper handling	250-sheet input tray	2 x 250 sheet trays, 150 sheet multipurpose feeder
Media sizes, standard	Card stock, letter, executive, legal, tabloid, envelopes	Tabloid, Executive, Folio, Letter, Legal, Universal, Envelopes
Media types	Paper, including, but not limited to; plain, pre-printed, letterhead, bond, transparencies, envelopes, and labels.	Plain Paper, Envelopes, Card Stock, Transparencies, Paper Labels
Print Languages	PCL 6, PCL 5e; optional: PostScript Level 2	PS 3, PCL 6, PPDS Migration Tools



Components	Target Minimum Specifications	Bid Specification
Parallel Port	Bi-directional	IEEE 1284 Bi-Directional Parallel Option
6' printer cable required	User-defined: IEEE 1284 parallel or USB 2.0	NEED TO ADD CABLE
Dimensions	Provide dimensions	18.1 x 16.9 x 15.4
Included Software	List product descriptions	Printer Drivers
Other Management Features	List product descriptions	Lexmark MarkVision Utility, Internal Web Page, Telnet
OS Certified: Windows XP Professional-compatible	Required	Yes
Warranty - three year parts and labor with State technical staff providing first level labor		Available
Warranty - fourth year parts and labor with State technical staff providing first level labor		Available
Shipping Costs	Must be included in base cost/per unit	Varies based on quantity
Options:		
Additional Memory SDRAM options		Available
Additional 250 or 500 sheet paper tray		Available
Additional toner cartridges		Available
Optional upgrade kit, including scanning, copying and faxing capability		N/A



Attachment I: Optional Specifications

Product Specification for Standard Color Inkjet Printers

Components	Target Minimum Specifications	Bid Specification
Your Model Name/Number	Please provide	Lexmark Model Not Available. Lenovo is open to providing a separate brand to meet required specifications.
When was this model introduced?	State date	
What is the expected market withdrawal date?	State date	
Print Speed (black)	Minimum 22 ppm	
Print Speed (color)	Minimum ppm	
Print Resolution (black)	Minimum 1200x1200 dpi	
Print Resolution (color)	Minimum 4800x1200 dpi	
Print Technology	Thermal Inkjet	
Print Quality	1200 dpi	
Memory, Standard	8 MB	
Memory, Maximum	Provide	
Standard Connectivity	IEEE 1284-compliant bi-directional parallel	
Paper trays, standard	1	
Paper trays, maximum	Provide	
Input capacity, standard	100 sheets	
Output capacity	60 sheets	
Media sizes, standard	Letter, Executive, legal, commercial #10 envelopes	
Media types	Paper, including, but not limited to; plain, pre-printed, letterhead, bond, transparencies, envelopes, and labels.	
Print Languages	PCL 6, PCL 5e, PostScript Level 3	
Standard Port	USB 2.0 Specification Hi-Speed Certified	
USB 2.0 certified cable	Required	
Dimensions	Provide dimensions	