

# Personal Systems Reference Lenovo® ThinkVision® Monitors

February 2009 - Version 352



ThinkVision L2440x Wide Monitor

# **Lenovo® E75 Monitor**

	sential CRT Monitors	Positioning			
Name Case color Type-model Stand Screen Viewable image size Aspect ratio Dot pitch Max view area (inches) Max view area (mm) CRT type Video input Vertical refresh rate range Horizontal line rate range Clock rate Optimum resolution Maximum resolution Preset display modes	30 to 72kHz 110Mpels/sec (MHz)  1024x768 at 85Hz 1280x1024 at 60Hz VGA: 640x480 60, 85Hz 720x400 70Hz SVGA: 800x600 75, 85Hz XGA: 1024x768 75, 85Hz 1152x864 75Hz SXGA: 1280x1024 60Hz	The Lenovo E75 CRT monitor is an essential monitor offering standard business features for value-conscious customers.  Features  17-inch (432mm) CRT with a viewable image size of 16.0" (406mm) incorporating a 0.25 dot pitch Flatter, squarer tube (FST) cathode ray tube (CRT) design Recommended for use at maximum resolution of 1024x768 at 85Hz for flicker-free viewing Anti-reflective screen treatments to minimize glare without sacrificing picture sharpness			
Presets / user settings	9/8				
On screen display On screen display controls Control features	Yes (6 languages)  Is Digital front panel controls Contrast/brightness, horizontal/vertical size/centering, pincushion, pincushion balance, image rotation, geometry recall, degauss, color point adjustment, R/G/B control, color point recall, selectable color points, picture zoom, moire control, parallelogram, trapezoid, display time				
Connector Signal cable Power cable Anti-reflective treatment Anti-static treatment Dimensions (H x W x D) Dimensions (H x W x D) Weight Stand	VGA 15-pin D-shell One 1.5 meter captive with VGA 15-pin D-shell 1.8 meter Yes Yes 15.0" x 15.6" x 16.9" 381mm x 397mm x 430mm 33.5 lb / 15.2 kg Tilt-swivel stand / tilt: 15° back, 5° forward / swivel: 90° left, 90° right				
VESA DDC VESA DPMS-compliant ENERGY STAR³ Emission standards TCO 99-compliant ISO 9241 capable RoHS Ship group Power supply Limited warranty⁴ Available date	2B / CI DPMS No MPR-II, FCC-B No Parts 3, 7, 8¹ RoHS (EU Directive 2002/95/EC) Monitor, attachable stand, Setup Guide, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, attached analog signal cable, separate 1.8m black power cable 90-264Vac, 75 watts maximum, 50-60Hz, universal 3-year January 2007				
	Limited Warranty	E Series Essential CRT Monitors provide essential features			
<ul> <li>3-year limited warranty<sup>4</sup></li> <li>International Warranty Service<sup>5</sup></li> <li>Rapid Replacement Service at 1-800-IBM-SERV (426-7378)</li> <li>Replacement normally arrives in two business days, excluding holidays</li> <li>Lenovo pays all shipping costs for valid warranty claims<sup>6</sup></li> <li>Service upgrade options:<sup>7</sup></li> <li>3-year, on site exchange, Mon-Fri 9-5 with next day response (ThinkPlus™ 41C9209)</li> <li>3-year, on site exchange 7 day x 24 hr with 4 hour response (ThinkPlus 41C9212)</li> <li>4-year, on site exchange Mon-Fri 9-5 with next day response (ThinkPlus 41C9217)</li> <li>4-year, on site exchange 7 day x 24 hr with 4 hour response (ThinkPlus 41C9218)</li> <li>24x7<sup>8</sup> day toll-free support for warranty issues during the warranty period<sup>4</sup></li> </ul>		at attractive prices  Accessories ThinkPad® Convertible Monitor Stand 40Y7620  See details at www.lenovo.com/support/monitoraccessories  See all monitors at www.lenovo.com/thinkvision			

**D156 Wide Flat Panel Monitor** Name

Case color **Business black** Type-model 4415-AB1

Panel TFT-LCD, twisted nematic (TN) **15.6" (396.2mm)** diagonal 13.6" x 7.6" / 344.2mm x 193.5mm Viewable image size Max view area (W x H)

Optimum resolution 1366x768 at 60Hz

Maximum resolution 1366x768 at 60Hz (135MHz max pixel rate)

Aspect ratio 16:9 Pixel pitch (mm) .252mm

Brightness 250 nits or cd/m2 (typical)

Contrast ratio 500:1 (typical) Pixel response time 8ms (typical) Color gamut 65%

Anti-reflective Anti-reflective, anti-glare

Vertical frequency 50 to 75Hz Horizontal frequency Viewing angle at 10:1 CR Viewing angle at 5:1 CR 30 to 60Hz

90° (+/- 45°) horizontal, 65° (+20/- 45°) vertical 110° (+/- 55°) horizontal, 85° vertical Tilt adjustable stand

Stand

Sides: 0.60" (15.8mm); top: 0.65" (16.5mm); bottom: 1.25" (31.8mm) 9.51-11.76" H x 14.72" W x 2.61-7.46" D; 241.5-298.6mm H x 374.0mm W x 66.3-189.6mm D Bezel width

Dimensions (HxWxD)

18 watts typical, 28 watts maximum, Power supply <2 watts standby/suspend, universal,

integrated (no external brick-like power supply)

Weight 5.82 lb; 2.64kg

Limited warranty4 3 year (includes backlight)

Available date October 2008

VESA DDC2B/CI, VESA DPMS-compliant VESA-compliant<sup>2</sup>

ENERGY STAR®3 5.0 Power management Ergonomics

Pixel defect

**Emission standards** 

ENERGY START=5.0 ISO 13406 Part 2¹ ISO 13406-2 Class II pixel defect standard MPR-2. MPR-3A, FCC Class B TCO 03, WEEE, RoHS (EU Directive 2002/95/EC), EPEAT™ Gold rating, GREENGUARD® certified **Environmental** 

Preset display resolutions VGA: 640x480, 640x350, 700x570

SVGA: 800x600 1024x768 XGA:

WXGA: 1360x768, 1366x768

Standard presets: 13; user settings: 10 Presets / user settings

Tilt: 20° back, 5° forward: no lift: no swivel: detachable stand Viewing adjustments

Rotating screen None

On screen display Control features On screen display with digital user controls (7 languages)

Direct access (buttons on front) for automatic image setup and brightness

USB hub None Multiple input None

Monitor connector VGA 15-pin D-shell, analog, blue

Signal cable

Detachable, VGA 15-pin D-shell at each end, analog, 1.8 meter
Wall or desk mounting using the Radial Arm<sup>9</sup> or third-party accessories meeting the VESA FPMPMI® (75mm mount) Mounting features Security

Security keyhole for attachment of optional cable lock (Kensington® lock-compatible)

Ship group Monitor, attached stand, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide and

monitor installation files, 1.8m analog signal cable, 1.8m black power cord

#### **Limited Warranty**

- 3 year limited warranty<sup>4</sup>
- ➢ International Warranty Service⁵
- Rapid Replacement Service at 1-800-IBM-SERV (426-7378)
- Replacement normally arrives in two business days, excluding holidays
- Lenovo pays all shipping costs for valid warranty claims<sup>6</sup>
- Service upgrade options:7
  - 3 year, on site exchange, Mon-Fri 9-5 with next day response (ThinkPlus™ part number 41C9209)
  - 3 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9212)
  - 4 year, on site exchange, Mon-Fri 9-5 with next day response (41C9227)
  - 4 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9228)
- 24x78 day toll-free support for warranty issues during the warranty period4

#### **Features**

- Widescreen 15.6-inch monitor
- EPEAT™ Gold rating
- Supports WXGA 1366x768 resolution
- Matching design to Lenovo notebooks and desktops



**D156 Wide Monitor** 

**Accessories** 

73P2582 Kensington® Cable Lock from Lenovo Kensington Twin Head Cable Lock 45K1620 ThinkPad Convertible Monitor Stand 40Y7620 ThinkVision TFT Radial Arm9 19K4464

See details at www.lenovo.com/support/monitoraccessories

**D185 Wide Flat Panel Monitor** Name

High gloss black 6318-HB1 Case color Type-model

Panel TFT-LCD, twisted nematic (TN), CCFL backlight Viewable image size

**18.5" (470mm)** diagonal 16.1" x 9.1" / 409.6mm x 230.3mm Max view area (W x H)

Optimum resolution 1366x768 at 60Hz

Maximum resolution 1366x768 at 60Hz (135MHz max pixel rate)

Aspect ratio 16:9 Pixel pitch (mm) .300mm Dot/Pixel per Inch 85 dpi

Brightness 250 nits or cd/m2 (typical) Contrast ratio 1000:1 (typical)

Pixel response time 5ms (typical) Color gamut 72%

Anti-reflective Anti-reflective, anti-glare

160° (+/- 80°) horizontal, 160° (+/- 80°) vertical Tilt adjustable stand Viewing angle at 10:1 CR Stand

Sides: 0.61" (15.6mm); top: 0.61" (15.6mm); bottom: 1.08" (27.5mm) 13.9" H x 17.6" W x 7.9" D; 354mm H x 446mm W x 201mm D Bezel width

Dimensions (HxWxD)

16 watts typical, 22 watts maximum, Power supply <1 watts standby/suspend, universal,

integrated (no external brick-like power supply)

Weight

8.9 lb; 4.05kg **3 years** (includes backlight) Limited warranty4

Available date February 2009

VESA-compliant<sup>2</sup> VESA DDC2B/CI, VESA DPMS-compliant

ENERGY STAR®34.1 Power management ISO 13406 Part 21 **Ergonomics** 

ISO 13406-2 Class II pixel defect standard MPR-2. MPR-3A, FCC Class B WEEE, RoHS (EU Directive 2002/95/EC), Pixel defect **Emission standards** 

Environmental

**EPEAT™** Silver rating

Preset resolutions VGA: 640x350, 640x480, 720x400

SVGA: 800x600 XGA: 1024x768 WXGA: 1366x768

Presets Standard presets: 20

#### **Features**

- Widescreen 18.5-inch monitor
- High Definition (HD) ready; 1366x768 resolution
- Detachable stand tilts for comfortable viewing
- NovoVision offers four modes (text, Internet and picture, video, and split demo) and provides automatic contrast, brightness, color correction, and color enhancement





Lenovo D185 Wide Monitor rear view

Viewing adjustments Tilt: 20° back. -5° forward: no lift: no swivel: detachable stand Rotating screen None

On screen display On screen display with digital user controls (7 languages) Control features

Direct access (control buttons on front) for automatic image setup and Novo Vision function providing automatic adjustment for contrast, brightness, color correction, and color enhancement with 4 mode settings for text, Internet and picture, video, and split demo)

USB hub None

Multiple input

Monitor connectors

Multiple input (two different PCs attach to two different connectors; one PC shows image; select via button) (1) VGA 15-pin D-shell, analog, blue
(2) Digital Visual Interface (DVI-D), digital, white, **HDCP-compliant**(1) detachable, VGA 15-pin D-shell at each end, analog, 1.8 meter
(2) detachable, DVI-D at each end, digital, 1.8 meter Signal cables

Wall or desk mounting using the Radial Arm<sup>9</sup> or third-party accessories meeting the VESA FPMPMI<sup>®</sup> (100mm mount) Security keyhole for attachment of optional cable lock (Kensington<sup>®</sup> lock-compatible) Mounting features Security

Monitor, attached stand, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, 1.8 meter analog signal cable, 1.8 meter digital signal cable, 1.8 meter black power cord Ship group

# **Limited Warranty**

- 3 years limited warranty<sup>4</sup>
- Rapid Replacement Service at 1-800-IBM-SERV (426-7378)
- Replacement normally arrives in two business days, excluding holidays
- Lenovo pays all shipping costs for valid warranty claims<sup>6</sup>
- 24x78 day toll-free support for warranty issues during the warranty period

ThinkVision Soundbar 45K1263 Kensington® Cable Lock from Lenovo 73P2582 Kensington Twin Head Cable Lock 45K1620 ThinkVision TFT Radial Arm9 19K4464

See details at www.lenovo.com/support/monitoraccessories See all monitors at www.lenovo.com/thinkvision

See footnotes for important warranty information US model announced January 27, 2009

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**L215 Wide Flat Panel Monitor** Name

High gloss black 6521-HB1 Case color

Type-model 6325-HB1

Panel TFT-LCD, twisted nematic (TN), CCFL backlight Viewable image size

**21.5**" (**547mm**) diagonal 18.7" x 10.5" / 476.0mm x 267.7mm Max view area (W x H)

Optimum resolution 1920x1080 at 60Hz Maximum resolution 1920x1080 at 60Hz (205MHz max pixel rate)

Aspect ratio Pixel pitch (mm) .248mm Dot/Pixel per Inch 103 dpi

Brightness 300 nits or cd/m2 (typical)

Contrast ratio 1000:1 (typical) Pixel response time 5ms (typical) Color gamut 72%

Anti-reflective Anti-reflective, anti-glare

160° (+/- 80°) horizontal, 160° (+/- 80°) vertical Tilt and swivel adjustable stand Viewing angle at 10:1 CR

Stand Sides: 0.66" (16.9mm); top: 0.98" (25.0mm); bottom: 0.83" (21.0mm)
15.4" H x 20.2" W x 7.1" D;
391.0mm H x 512.3mm W x 180.2mm D Bezel width

Dimensions (HxWxD)

36 watts typical, 45 watts maximum, Power supply <1 watts standby/suspend, universal,

integrated (no external brick-like power supply)

10.8 lb; 4.9kg Weight

Limited warranty4 1 year 3 years (includes backlight) (includes backlight)

February 2009 Available date

VESA DDC2B/CI, VESA DPMS-compliant VESA-compliant<sup>2</sup>

Power management ENERGY STAR®3 4.1 Ergonomics ISO 13406 Part 21

ISO 13406-2 Class II pixel defect standard MPR-2. MPR-3A, FCC Class B Pixel defect

**Emission standards** 

Environmental WEEE, RoHS (EU Directive 2002/95/EC)

Preset resolutions 640x350, 640x480 800x600, 832x624 VGA:

SVGA: XGA: 1024x768,1152x864 SXGA: 1280x1024

WXGA+: 1440x900 WSXGA+: 1680x1050 WUXGA: 1920x1080

Presets Standard presets: 25

#### **Features**

- Widescreen 21.5-inch monitor
- High Definition (Full HD) ready; supports 1080p video
- Stand tilts and swivels for comfortable viewing
- Detachable rear stand with cable clip to hide cables
- NovoVision offers four modes (text, Internet and picture, video, and split demo) and provides automatic contrast, brightness, color correction, and color enhancement



Viewing adjustments Tilt: 20° back. -5° forward: swivel: +/-170°: detachable stand

Rotating screen None

On screen display On screen display with digital user controls (7 languages)

Control features Direct access (control buttons on front) for automatic image setup and Novo Vision function providing automatic

adjustment for contrast, brightness, color correction, and color enhancement with 4 mode settings for text, Internet and picture, video, and split demo)

USB hub None

Signal cables

Multiple input (two different PCs attach to two different connectors; one PC shows image; select via button) (1) VGA 15-pin D-shell, analog, blue
(2) Digital Visual Interface (DVI-D), digital, white, **HDCP-compliant**(1) detachable, VGA 15-pin D-shell at each end, analog, 1.8 meter
(2) detachable, DVI-D at each end, digital, 1.8 meter Multiple input

Monitor connectors

Mounting features Wall or desk mounting using the Radial Arm<sup>9</sup> or third-party accessories meeting the VESA FPMPMI® (75mm mount)

Security keyhole for attachment of optional cable lock (Kensington® lock-compatible) Security

Monitor, attached stand, cable clip, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide Ship group and monitor installation files, 1.8 meter analog signal cable, 1.8 meter digital signal cable, 1.8 meter black power cord

#### **Limited Warranty**

- 6521: 1 year limited warranty<sup>4</sup>
- 6325: 3 year limited warranty<sup>4</sup>
- Rapid Replacement Service at 1-800-IBM-SERV (426-7378)
- Replacement normally arrives in two business days, excluding holidays
- Lenovo pays all shipping costs for valid warranty claims<sup>6</sup>
- 24x78 day toll-free support for warranty issues during the warranty period4

ThinkVision Soundbar 45K1263 Kensington® Cable Lock from Lenovo 73P2582 Kensington Twin Head Cable Lock 45K1620 ThinkVision TFT Radial Arm9 19K4464

See details at www.lenovo.com/support/monitoraccessories

L215p Wide Flat Panel Monitor Name High gloss black 6521-HC1 Case color Type-model 6325-HC1 Panel TFT-LCD, twisted nematic (TN), CCFL backlight **21.5**" (**547mm**) diagonal 18.7" x 10.5" / 476.0mm x 267.7mm Viewable image size Max view area (W x H) Optimum resolution 1920x1080 at 60Hz Maximum resolution 1920x1080 at 60Hz (205MHz max pixel rate) Aspect ratio Pixel pitch (mm) .248mm Dot/Pixel per Inch 103 dpi Brightness 300 nits or cd/m2 (typical) Contrast ratio 1000:1 (typical) Pixel response time 5ms (typical) Color gamut 72% Anti-reflective Anti-reflective, anti-glare 160° (+/- 80°) horizontal, 160° (+/- 80°) vertical Tilt and swivel adjustable stand Viewing angle at 10:1 CR Stand Sides: 0.66" (16.9mm); top: 0.98" (25.0mm); bottom: 0.83" (21.0mm) Bezel width Integrated in top bezel, 0.3-megapixel, fixed focus Integrated in top bezel
15.4" H x 20.2" W x 7.1" D;
391.0mm H x 512.3mm W x 180.2mm D
40 watts typical, 45 watts maximum, Web camera Microphone Dimensions (HxWxD) Power supply <1 watts standby/suspend, universal, integrated (no external brick-like power supply) Weight 11.6 lb; 5.06kg Limited warranty4 1 year 3 years (includes backlight) (includes backlight) Available date February 2009 VESA DDC2B/CI, VESA DPMS-compliant VESA-compliant<sup>2</sup> Power management ENERGY STAR®3 4.1 Ergonomics ISO 13406 Part 21 ISO 13406-2 Class II pixel defect standard MPR-2. MPR-3A, FCC Class B WEEE, RoHS (EU Directive 2002/95/EC) Pixel defect **Emission standards** Environmental Preset resolutions 640x350, 640x480 SVGA: 800x600, 832x624 XGA: 1024x768,1152x864 SXGA: 1280x1024 WXGA+: 1440x900 WSXGA+: 1680x1050 WUXGA: 1920x1080 Preset video timing for HDMI 480i: 720x240 480p: 640x480, 720x480 720x576 576p: 720p: 1280x720 1080i: 1920x1080 1080p: 1920x1080

#### **Features**

- Widescreen 21.5-inch monitor
- High Definition (Full HD) ready; supports 1080p video
- · Stand tilts and swivels for comfortable viewing
- VOIP ready with integrated 0.3-megapixel camera and microphone plus optional ThinkVision Soundbar
- Detachable rear stand with cable clip to hide cables
- NovoVision offers four modes (text, Internet and picture, video, and split demo) and provides automatic contrast, brightness, color correction, and color enhancement



Lenovo L215p Wide Monitor rear view with cable management



Viewing adjustments Rotating screen

Presets

Tilt: 20° back, -5° forward; swivel: +/-170°; detachable stand

None

Standard presets: 25

On screen display Control features

On screen display with digital user controls (7 languages), touch-sensitive control buttons
Direct access (control buttons on front) for automatic image setup and Novo Vision function providing automatic

adjustment for contrast, brightness, color correction, and color enhancement with 4 mode settings for text,

Internet and picture, video, and split demo)
USB 2.0 Hub (1 port into PC, 3 ports for accessories)
Multiple input (two different PCs attach to two different connectors; one PC shows image; select via button) USB hub Multiple input

Monitor connectors

(1) VGA 15-pin D-shell, analog, blue (2) HDMI (1.3), digital, black, **HDCP-compliant** 

Signal cables

(1) detachable, VGA 15-pin D-shell at each end, analog, 1.8 meter (2) detachable, HDMI at each end, digital, 1.8 meter Wall or desk mounting using the Radial Arm<sup>9</sup> or third-party accessories meeting the VESA FPMPMI® (75mm mount) Mounting features Security

Security keyhole for attachment of optional cable lock (Kensington® lock-compatible)

Monitor, attached stand, cable clip, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, 1.8 meter analog signal cable, 1.8 meter HDMI cable, 1.8 meter USB cable, 1.8 meter audio cable, 1.8 meter black power cord Ship group

## **Limited Warranty**

- 6521: 1 year limited warranty 6325: 3 year limited warranty
- Rapid Replacement Service at 1-800-IBM-SERV (426-7378)
- Replacement normally arrives in two business days, excluding holidays
- Lenovo pays all shipping costs for valid warranty claims<sup>6</sup>
- 24x78 day toll-free support for warranty issues during the warranty period4

### Accessories

ThinkVision Soundbar 45K1263 Kensington® Cable Lock from Lenovo 73P2582 Kensington Twin Head Cable Lock 45K1620 ThinkVision TFT Radial Arms 19K4464

See details at www.lenovo.com/support/monitoraccessories

Flat Panel Monitors - US model		- Features		
Aspect ratio Pixel pitch (mm) Max view area (inches) Max view area (mm) Viewing angle at 5:1 CR	L151 Flat Panel Monitor Business black 9165-AC6 No Tilt stand LCD Active Matrix TFT (Thin Film Transistor) 15.0" / 381mm (diagonal) 4:3 .297mm 12.0" x 9.0" (horizontal x vertical) 304mm x 228mm (horizontal x vertical) 140° (+80°/- 60°) vertical, 160° (+/- 80°) horizontal 125° (+/- 62.5°) vertical, 140° (+/- 70°) horizontal Analog No No pivot	All-purpose 15-inch flat panel LCD monitor     EPEAT™ Gold rating     Slim 16mm (0.63") side bezel     Resolution of 1024x768 provides crisp screen images     Stand tilts for comfortable viewing     Direct access for automatic image setup and brightness     Quick and easy monitor adjustments using on-screen display menus     A great replacement for a 15" or 17" CRT monitor     Integrated power supply eliminates the bulky power adapter for improved cable management     Lockable digital controls     Matching design to ThinkPad® and ThinkCentre® systems		
Optimum resolution Maximum resolution Vertical frequency Horizontal frequency Preset display modes	1024x768 at 60Hz 1024x768 at 75Hz (80MHz maximum pixel rate) 55 to 75Hz 30 to 63kHz VGA: 640x480 60, 66, 72, 75Hz 640x350 70Hz 720x400 70Hz SVGA: 800x600 60, 72, 75Hz XGA: 1024x768 60, 70, 75Hz			
Presets / user settings Brightness Contrast ratio Pixel response time Scaling	Standard presets: 12; user settings: 10 250 nits or cd/m² (typical) 500:1 (typical) 8ms (typical) Can expand image of lower resolution to full screen of 1024x768			
On screen display Control features  Monitor connector Signal cable Anti-reflective Dimensions Weight Viewing adjustments Mounting features Security	On screen display with digital user controls (7 languages) 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 One connector: analog VGA 15-pin D-shell [blue] Analog cable, detachable, VGA 15-pin D-shell at each end (for analog connector), 1.8 meter, matches color of monitor Anti-reflective, anti-glare 13.31"H x 13.56"W x 6.12"D / 338mm height x 345mm width x 156mm depth 6.8 lb / 3.1kg Tilt: 30° back, 4° forward, no swivel, no lift, detachable stand Wall or desk mounting using the Radial Arm <sup>9</sup> or third-party accessories meeting the VESA FPMPMI® (100mm mount) Security keyhole for attachment of optional cable lock (Kensington® lock-compatible)			
VESA-compliant <sup>2</sup> Power management Ergonomics Pixel defect Emission standards Environmental Ship group  Power supply Limited warranty <sup>4</sup> Available date	pattern, and monitor installation files; analog signal c	arranty Information; ČD with multilingual User's Guide, set-up test		

Limited Warranty	Accessories	
⇒ 3-year limited warranty <sup>4</sup>	ThinkVision® USB Soundbar 40Y7616 Kensington® MicroSaver® Security Cable Lock 73P2582 Kensington Twin Head Cable Lock 45K1620	
International Warranty Service⁵		
Rapid Replacement Service at 1-800-IBM-SERV (426-7378)		
Replacement normally arrives in two business days, excluding holidays	ThinkPad Convertible Monitor Stand	40Y7620
	ThinkVision TFT Radial Arm9	19K4464
Service upgrade options:7		
3 year, on site exchange, Mon-Fri 9-5 with next day response	See details at www.lenovo.com/support/monitoraccessories	
(ThinkPlus™ part number 41C9209)		
• 3 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9212)		
• 4 year, on site exchange, Mon-Fri 9-5 with next day response (41C9233)		
• 4 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9234)	See all monitors at www.lenovo.com/thinkvision	
4 year, mail exchange (51J0589)		
• 5 year, mail exchange (51J0590)		
≈ 24x78 day toll-free support for warranty issues during the warranty period		

#### Flat Panel Monitors - US model **Features** L174 Flat Panel Monitor Name • All-purpose 17-inch flat panel LCD monitor Case color **Business black** EPĖAT™ Gold rating Type-model 9227-AE1 • Resolution of 1280x1024 provides crisp screen images Stand Tilt stand • Slim 15.6mm (0.61") side bezel LCD Active Matrix TFT (Thin Film Transistor) Screen Stand tilts for comfortable viewing Viewable image size (diag)17.0" / 432mm (diagonal) • Direct access for automatic image setup and brightness 5:4 Aspect ratio Quick and easy monitor adjustments using on-screen-display Pixel pitch (mm) .264mm Scaling allows full screen viewing of resolutions less than Max view area (inches) 13.3" x 10.6" (horizontal x vertical) 1280x1024 340mm x 272mm (horizontal x vertical) 140° vertical, 152° horizontal Max view area (mm) • Integrated power supply eliminates the bulky power adapter Viewing angle at 5:1 CR for improved cable management Viewing angle at 10:1 CR 130° vertical, 140° horizontal Lockable digital controls Video input Analog • Complements the ThinkCentre® and ThinkPad® systems Dual input Optimum resolution 1280x1024 at 60Hz 1280x1024 at 76Hz (140MHz maximum pixel rate) Maximum resolution Vertical frequency 55 to 75Hz Horizontal frequency 30 to 83kHz Preset display modes VGA: 640x480 60, 66, 72, 75Hz 640x350 70Hz 720x400 70Hz SVGA: 800x600 60, 72, 75Hz XGA: 1024x768 60, 70, 75Hz SXGA: 1280x1024 60, 70, 75, 76Hz Standard presets: 16; user settings: 20 Presets / user settings 250 nits or cd/m2 (typical) Brightness Contrast ratio 700:1 (typical) Pixel response time 5ms (typical) Lenovo ThinkVision L174 Color gamut Can expand image of lower resolution to full screen of 1280x1024 Scaling On screen display On screen display with digital user controls (7 languages) Direct access (buttons on front) for auto adjustment and brightness; Control features 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 Monitor connector One connector: analog VGA 15-pin D-shell [blue] Signal cable Analog cable, detachable, VGA 15-pin D-shell at each end (for analog connector), 1.8 meter, matches color of monitor Anti-reflective Anti-reflective, anti-glare 15.3"H x 14.6"W x 6.8"D / 387mm height x 371mm width x 173mm depth Dimensions 9.1 lb / 4.2kg Weight Viewing adjustments Tilt: 30° back, 4° forward, no swivel, no lift, detachable stand Wall or desk mounting using the TFT Radial Arm9 or third-party accessories meeting the VESA FPMPMI® (100mm mount) Mounting features Security Security keyhole for attachment of optional cable lock (Kensington® lock-compatible) VESA DDC2B/CI, VESA DPMS-compliant ENERGY STAR® 5.0 ISO 13406 Part 21 VESA-compliant<sup>2</sup> Power management Ergonomics ISO 13406-2 Class II pixel defect standard Pixel defect MPR-2, MPR-3A, FCC Class B TCO 03, WEEE, RoHS (EU Directive 2002/95/EC), **EPEAT™ Gold rating Emission standards** Environmental Monitor, attached stand, customer installable base, Setup Guide, Safety and Warranty Information, CD with Ship group multilingual User's Guide and monitor installation files, analog signal cable, 1.8m black power cord Power supply 100-240Vac (universal), integrated (no external brick-like power supply), 20 watts typical, <2 watts standby/suspend Limited warranty4 3 year (includes backlight) Available date April 2008 **Limited Warranty Accessories**

- 3-year limited warranty<sup>4</sup>
- Rapid Replacement Service at 1-800-IBM-SERV (426-7378)
- Replacement normally arrives in two business days, excluding holidays
- Lenovo pays all shipping costs for valid warranty claims<sup>6</sup>
- Service upgrade options:7
  - 3 year, on site exchange, Mon-Fri 9-5 with next day response (ThinkPlus™ part number 41C9209)
  - 3 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9212)
  - 4 year, on site exchange, Mon-Fri 9-5 with next day response (41C9233)
  - 4 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9234)
  - 4 year, mail exchange (51J0589)
  - 5 year, mail exchange (51J0590)
- 24x78 day toll-free support for warranty issues during the warranty period4

ThinkVision® USB Soundbar 40Y7616
Kensington® MicroSaver® Security Cable Lock 73P2582
Kensington Twin Head Cable Lock 45K1620
ThinkPad Convertible Monitor Stand 40Y7620
ThinkVision TFT Radial Arm³ 19K4464

See details at www.lenovo.com/support/monitoraccessories

L1700p Flat Panel Monitor Name Case color Business black Type-model 9417-HE2 Panel TFT-LCD, twisted nematic (TN), CCFL backlight **17.0"** (**432mm**) diagonal 13.3" x 10.6" (337.9mm x 270.3mm) Viewable image size Max view area (W x H) Optimum resolution 1280x1024 at 60Hz Maximum resolution 1280x1024 at 75Hz (135MHz max pixel rate) Aspect ratio Pixel pitch (mm) 0.264mm Dot/Pixel per Inch 96 dpi Brightness 250 nits or cd/m2 (typical) Contrast ratio 800:1 (typical) Pixel response time 5ms (typical) Color gamut 72% Anti-reflective Anti-reflective, anti-glare Vertical frequency 55 to 76Hz Horizontal frequency 30 to 81kHz Viewing angle at 10:1 CR 160° (+/- 80°) horizontal, 160° (+/- 80°) vertical Tilt, swivel, pivot, and height adjustable stand Sides: 0.63" (16.1mm); top: 0.73" (18.6mm); bottom: 1.07" (27.2mm) Stand Bezel width 14.4-18.7" H x 14.6" W x 6.7-7.8" D; 366.1-476.1mm H x 371.3mm W x 170.2-223.3mm D Dimensions (HxWxD) 16 watts typical, 21 watts maximum. Power supply <1 watts standby/suspend, universal, integrated (no external brick-like power supply) 10.5 lb; 4.8kg Weight Limited warranty4 3 year (includes backlight)

September 2008 Available date VESA DDC2B/CI, VESA DPMS-compliant VESA-compliant<sup>2</sup> ENERGY STAR®3 5.0 Power management ENERGY STARTS.0 ISO 13406 Part 2¹ ISO 13406-2 Class II pixel defect standard MPR-2. MPR-3A, FCC Class B TCO 03, WEEE, RoHS (EU Directive 2002/95/EC), EPEAT™ Gold rating, GREENGUARD® certified Ergonomics Pixel defect **Emission standards Environmental** Preset resolutions VGA: 640x350, 640x480, 720x400 SVGA: 800x600, 832x624

1024x768,1152x864

WXGA: 1280x720, 1280x768 SXGA: 1280x1024 Standard presets: 21; Presets / user settings user settings: 20

XGA:

**Features** 

Regular screen 17-inch monitor

- Supports SXGA 1280x1024 resolution
- Ergonomic stand tilts, swivels, pivots and provides a 4.3" (110mm) range height adjustment for comfortable viewing
- Detachable rear stand cable cover and clip to hide cables
- Carrying handle
  Microsoft® Windows® Vista® certified



ThinkVision L1700p Monitor

Tilt: 30° back, 0° forward; lift: 4.3" (110mm); swivel: +/-45°; detachable stand Screen pivots 90 degrees from landscape to portrait (requires image rotation support from graphics controller), Viewing adjustments Rotating screen On screen display On screen display with digital user controls (8 languages) Direct access (buttons on front) for automatic image setup

Multiple input (two different PCs attach to two different connectors; one PC shows image; select via button) Control features Multiple input (1) VGA 15-pin D-shell, analog, blue (2) Digital Visual Interface (DVI-D), digital, white, **HDCP-compliant** (1) detachable, VGA 15-pin D-shell at each end, analog, 1.8 meter Monitor connectors Signal cables (2) detachable, DVI-D at each end, digital, 1.8 meter
Wall or desk mounting using the Radial Arm<sup>9</sup> or third-party accessories meeting the VESA FPMPMI® (100mm mount) Mounting features Security Security keyhole for attachment of optional cable lock (Kensington® lock-compatible) Monitor, attached stand, cable cover, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide Ship group and monitor installation files, 1.8 meter analog signal cable, 1.8 meter digital signal cable, 1.8 meter black power cord

# **Limited Warranty**

- 3 year limited warranty<sup>4</sup>
- Rapid Replacement Service at 1-800-IBM-SERV (426-7378)
- Replacement normally arrives in two business days, excluding holidays
- Lenovo pays all shipping costs for valid warranty claims<sup>6</sup>
- Service upgrade options:7
  - 3 year, on site exchange, Mon-Fri 9-5 with next day response (ThinkPlus™ part number 41C9209)
  - 3 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9212)
  - 4 year, on site exchange, Mon-Fri 9-5 with next day response (41C9233)
  - 4 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9234)
  - 4 year, mail exchange (51J0589)
  - 5 year, mail exchange (51J0590)
- 24x78 day toll-free support for warranty issues during the warranty period4

#### **Accessories**

	ThinkVision USB Soundbar	40Y7616
	Kensington® Cable Lock from Lenovo	73P2582
	Kensington Twin Head Cable Lock	45K1620
	ThinkPad Convertible Monitor Stand	40Y7620
	ThinkVision TFT Radial Arm9	19K4464
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See details at www.lenovo.com/support/monitoraccessories

#### Flat Panel Monitors - US model

L197 Wide Flat Panel Monitor Name

Case color **Business black** Type-model 4434-HE1 Stand Tilt stand

Screen LCD Active Matrix TFT (Thin Film Transistor)

Viewable image size (diag) 19.0" / 481mm (diagonal)

Aspect ratio 16:10 Pixel pitch (mm) .285mm

Max view area (inches) 16.1" x 10.0" (horizontal x vertical) Max view area (mm) 408mm x 255mm (horizontal x vertical) Viewing angle at 5:1 CR 176° vertical, 176° horizontal 160° vertical, 170° horizontal

Viewing angle at 10:1 CR Video input

Digital or analog (two separate connectors)

Dual input (two different PCs attach to two different Dual input connectors; one PC shows image; select via button) Rotating screen No pivot

USB Hub None

1440x900 at 60Hz Optimum resolution

Maximum resolution 1440x900 at 75Hz (137MHz maximum pixel rate) Vertical frequency 50 to 76Hz

Horizontal frequency 30 to 81kHz

Preset display modes VGA: 640x480 60, 66, 72, 75Hz

70Hz 640x350 720x400 70Hz

SVGA: 800x600 56, 60, 72, 75Hz 832x624 75Hz XGA: 1024x768 60, 70, 75Hz 1152x864 75Hz

1280x1024 60, 70, 75Hz WXGA+: 1440x900 60, 75Hz Standard presets: 20; user settings: 20

Presets / user settings Brightness 250 nits or cd/m<sup>2</sup> (typical)

Contrast ratio 1000:1 (typical) Pixel response time 5ms (typical)

Color gamut

Signal cables

Power supply

**Features** 

- Widescreen 19-inch flat panel monitor
- EPEAT™ Gold rating
- View images in a 16:10 wide aspect ratio
- Resolution of 1440x900 provides crisp screen images
- Slim 14.3mm (0.56") side bezel
- High-bandwidth Digital Content Protection (HDCP)-compliant
- Includes dual input connection for attachment to two systems concurrently (analog and digital)
- Complements the ThinkCentre® and ThinkPad® systems
   Microsoft® Windows® Vista™ Premium certified



Lenovo ThinkVision L197 Wide

On screen display On screen display with digital user controls (7 languages) Control features Direct access (buttons on front) for automatic image setup Monitor connectors Two connectors: (1) analog VGA 15-pin D-shell [blue],

(2) Digital Visual Interface (DVI-D) for digital (not analog) attach [white], **HDCP-compliant**(1) detachable, VGA 15-pin D-shell at each end (for analog connector), 1.8 meter, matches color of monitor

(2) detachable digital, DVI-D at each end (for digital connector), 1.8 meter, matches color of monitor

Two cables: Anti-reflective

Anti-reflective, anti-glare 15.0"H x 17.3"W x 7.0"D / 381mm height x 440mm width x 179mm depth **Dimensions** 

Weight

9.15lb / 4.15kg Tilt: 30° back, 4° forward / no lift, no swivel, detachable stand Viewing adjustments

Mounting features Wall or desk mounting using the Radial Arm9 or third-party accessories meeting the VESA FPMPMI® (100mm mount) Security

Security keyhole for attachment of optional cable lock (Kensington® lock-compatible)

VESA-compliant<sup>2</sup> VESA DDC2B/CI, VESA DPMS-compliant

ENERGY STAR<sup>®3</sup> 5.0 ISO 13406 Part 2<sup>1</sup> Power management Ergonomics

Pixel defect

**Emission standards** 

Environmental

ISO 13406-2 Class II pixel defect standard
MPR-2, MPR-3A, FCC Class B
TCO 03, WEEE, RoHS (EU Directive 2002/95/EC), EPEAT™ Gold rating
Monitor, attached stand, Setup Guide, Safety and Warranty Information, CD with multilingual User's Guide and Ship group

monitor installation files, analog signal cable, digital signal cable, 1.8m black power cord 90-264Vac (universal), integrated (no external brick-like power supply), 22 watts typical, <2 watts standby/suspend

Limited warranty4 3 year (includes backlight)

Available date April 2008

#### **Accessories Limited Warranty**

- 3 year limited warranty<sup>4</sup>
- International Warranty Service<sup>5</sup>
- Rapid Replacement Service at 1-800-IBM-SERV (426-7378)
- Replacement normally arrives in two business days, excluding holidays
- Lenovo pays all shipping costs for valid warranty claims<sup>6</sup>
- Service upgrade options:7
  - 3 year, on site exchange, Mon-Fri 9-5 with next day response (ThinkPlus™ part number 41C9209)
  - 3 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9212)
  - 4 year, on site exchange, Mon-Fri 9-5 with next day response (41C9233)
  - 4 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9234)
  - 4 year, mail exchange (51J0589)
  - 5 year, mail exchange (51J0590)
- 24x78 day toll-free support for warranty issues during the warranty period4

ThinkVision® USB Soundbar

40Y7616 Kensington® MicroSaver® Security Cable Lock 73P2582 Kensington Twin Head Cable Lock 45K1620 ThinkPad Convertible Monitor Stand 40Y7620 ThinkVision TFT Radial Arm9 19K4464

See details at www.lenovo.com/support/monitoraccessories

Name L1900p Flat Panel Monitor Case color Business black Type-model 4431-HE1 Panel TFT-LCD, twisted nematic (TN), CCFL backlight **19.0"** (**483mm**) diagonal 14.8" x 11.85" (376mm x 301mm) Viewable image size Max view area (W x H) Optimum resolution 1280x1024 at 60Hz Maximum resolution 1280x1024 at 75Hz (135MHz max pixel rate) Aspect ratio Pixel pitch (mm) .294mm Dot/Pixel per Inch 86 dpi Brightness 250 nits or cd/m2 (typical) Contrast ratio 800:1 (typical) Pixel response time 5ms (typical) Color gamut 72% Anti-reflective Anti-reflective, anti-glare Vertical frequency 56 to 76Hz Horizontal frequency 30 to 81kHz Viewing angle at 10:1 CR 160° (+/- 80°) horizontal, 160° (+/- 80°) vertical Tilt, swivel, pivot, and height adjustable stand Sides: 0.6" (15.3mm); top: 0.66" (16.8mm); bottom: 1.05" (26.8mm) 14.9-19.2" H x 16.1" W x 7.4-9.5" D; 378.7-488.7mm H x 408mm W x 188-241.1mm D 17 watts typical, 24 watts maximum, Stand Bezel width Dimensions (HxWxD) Power supply <1 watts standby/suspend, universal, integrated (no external brick-like power supply) 12.5 lb; 5.7kg Weight Limited warranty4 3 year (includes backlight) November 2008 Available date VESA-compliant<sup>2</sup> VESA DDC2B/CI, VESA DPMS-compliant ENERGY STAR®3 5.0 Power management ENERGY START 5.0 ISO 13406 Part 2¹ ISO 13406-2 Class II pixel defect standard MPR-2. MPR-3A, FCC Class B TCO 03, WEEE, RoHS (EU Directive 2002/95/EC), EPEAT™ Gold rating, GREENGUARD® certified Ergonomics Pixel defect **Emission standards Environmental** Preset resolutions VGA: 640x350, 640x480, 720x400

#### **Features**

- Regular screen 19-inch monitor
- Supports SXGA 1280x1024 resolution
- Ergonomic stand tilts, swivels, pivots and provides a 4.3" (110mm) range height adjustment for comfortable viewing
- Detachable rear stand cable cover and clip to hide cables
- Microsoft® Windows® Vista® certified



with optional ThinkVision Soundbar

Standard presets: 21; Presets / user settings user settings: 17 Tilt: 30° back, 0° forward; lift: 4.3" (110mm); swivel: +/-45°; detachable stand Screen pivots 90 degrees from landscape to portrait (requires image rotation support from graphics controller) Viewing adjustments Rotating screen On screen display On screen display with digital user controls (8 languages) Direct access (buttons on front) for automatic image setup

Multiple input (two different PCs attach to two different connectors; one PC shows image; select via button) Control features Multiple input (1) VGA 15-pin D-shell, analog, blue (2) Digital Visual Interface (DVI-D), digital, white, **HDCP-compliant** (1) detachable, VGA 15-pin D-shell at each end, analog, 1.8 meter Monitor connectors Signal cables (2) detachable, DVI-D at each end, digital, 1.8 meter
Wall or desk mounting using the Radial Arm<sup>9</sup> or third-party accessories meeting the VESA FPMPMI® (100mm mount) Mounting features Security Security keyhole for attachment of optional cable lock (Kensington® lock-compatible)

Monitor, attached stand, cable cover, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide

and monitor installation files, 1.8 meter analog signal cable, 1.8 meter digital signal cable, 1.8 meter black power cord

# **Limited Warranty**

800x600

1024x768

1280x1024

3 year limited warranty<sup>4</sup>

Ship group

- Rapid Replacement Service at 1-800-IBM-SERV (426-7378)

SVGA: XGA:

SXGA:

- Replacement normally arrives in two business days, excluding holidays
- Lenovo pays all shipping costs for valid warranty claims<sup>6</sup>
- Service upgrade options:7
  - 3 year, on site exchange, Mon-Fri 9-5 with next day response (ThinkPlus™ part number 41C9209)
  - 3 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9212)
  - 4 year, on site exchange, Mon-Fri 9-5 with next day response (41C9233)
  - 4 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9234)
  - 4 year, mail exchange (51J0589)
  - 5 year, mail exchange (51J0590)
- 24x78 day toll-free support for warranty issues during the warranty period4

#### **Accessories**

ThinkVision Soundbar 45K1263 Kensington® Cable Lock from Lenovo 73P2582 Kensington Twin Head Cable Lock 45K1620 ThinkPad Convertible Monitor Stand 40Y7620 ThinkVision TFT Radial Arm9 19K4464

See details at www.lenovo.com/support/monitoraccessories

L1940p Wide Flat Panel Monitor Name Case color Business black Type-model 4424-HB6 Panel TFT-LCD, twisted nematic (TN), CCFL backlight **19.0"** (**481mm**) diagonal 16.1" x 10" (408.2mm x 255.2mm) Viewable image size Max view area (W x H) Optimum resolution **1440x900** at 60Hz Maximum resolution 1440x900 at 75Hz (137MHz max pixel rate) 16:10 Aspect ratio Pixel pitch (mm) .285mm Dot/Pixel per Inch 89 dpi Brightness 250 nits or cd/m2 (typical) Contrast ratio 1000:1 (typical) Pixel response time 5ms (typical) Color gamut 72% Anti-reflective Anti-reflective, anti-glare Vertical frequency 50 to 76Hz Horizontal frequency 30 to 81kHz Viewing angle at 10:1 CR 160° (+/- 80°) horizontal, 160° (+/- 80°) vertical Tilt, swivel, pivot, and height adjustable stand Sides: 0.61" (15.4mm); top: 0.65" (16.4mm); bottom: 1.1" (27.9mm) 14-18.3" H x 17.3" W x 7.4-9.5" D; 356.1-466.1mm H x 440.2mm W x 188-241.1mm D Stand Bezel width Dimensions (HxWxD) 16 watts typical, 23 watts maximum. Power supply <1 watts standby/suspend, universal, integrated (no external brick-like power supply) 12.8 lb; 5.8kg Weight Limited warranty4 3 year (includes backlight) Available date October 2008

VESA DDC2B/CI, VESA DPMS-compliant VESA-compliant<sup>2</sup> ENERGY STAR®3 5.0 Power management ENERGY STARTS.0 ISO 13406 Part 2¹ ISO 13406-2 Class II pixel defect standard MPR-2. MPR-3A, FCC Class B TCO 03, WEEE, RoHS (EU Directive 2002/95/EC), EPEAT™ Gold rating, GREENGUARD® certified Ergonomics Pixel defect **Emission standards** 

**Environmental** 

Preset resolutions VGA: 640x350, 640x480, 720x400 SVGA: 800x600, 832x624 XGA: 1024x768,1152x864 WXGA: 1280x720, 1280x768 SXGA: 1280x1024

WXGA+: 1440x900 Standard presets: 22; Presets / user settings user settings: 20

#### **Features**

- Widescreen 19-inch monitor
- Supports WXGA+ 1440x900 resolution
- Ergonomic stand tilts, swivels, pivots and provides a 4.3" (110mm) range height adjustment for comfortable viewing
- Detachable rear stand cable cover and clip to hide cables • Microsoft® Windows® Vista® certified
- lenovo

ThinkVision L1940p Wide Monitor

Tilt: 30° back, 0° forward; lift: 4.3" (110mm); swivel: +/-45°; detachable stand Viewing adjustments Screen pivots 90 degrees from landscape to portrait (requires image rotation support from graphics controller), Rotating screen On screen display On screen display with digital user controls (8 languages) Control features Direct access (buttons on front) for automatic image setup Multiple input Multiple input (two different PCs attach to two different connectors; one PC shows image; select via button) (1) VGA 15-pin D-shell, analog, blue (2) Digital Visual Interface (DVI-D), digital, white, **HDCP-compliant** Monitor connectors (1) detachable, VGA 15-pin D-shell at each end, anal (2) detachable, DVI-D at each end, digital, 1.8 meter Signal cables detachable, VGA 15-pin D-shell at each end, analog, 1.8 meter

Mounting features

Wall or desk mounting using the Radial Arm9 or third-party accessories meeting the VESA FPMPMI® (100mm mount) Security keyhole for attachment of optional cable lock (Kensington® lock-compatible) Security

Monitor, attached stand, cable cover, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, 1.8 meter analog signal cable, 1.8 meter digital signal cable, 1.8 meter black power cord

## **Limited Warranty**

3 year limited warranty<sup>4</sup>

Ship group

- International Warranty Service<sup>5</sup>
- Rapid Replacement Service at 1-800-IBM-SERV (426-7378)
- Replacement normally arrives in two business days, excluding holidays
- Lenovo pays all shipping costs for valid warranty claims<sup>6</sup>
- Service upgrade options:7
  - 3 year, on site exchange, Mon-Fri 9-5 with next day response (ThinkPlus™ part number 41C9209)
  - 3 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9212)
  - 4 year, on site exchange, Mon-Fri 9-5 with next day response (41C9233)
  - 4 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9234)
  - 4 year, mail exchange (51J0589)
  - 5 year, mail exchange (51J0590)
- 24x78 day toll-free support for warranty issues during the warranty period4

#### Accessories

ThinkVision USB Soundbar 40Y7616 Kensington® Cable Lock from Lenovo 73P2582 Kensington Twin Head Cable Lock 45K1620 40Y7620 ThinkPad Convertible Monitor Stand ThinkVision TFT Radial Arm9 19K4464

See details at www.lenovo.com/support/monitoraccessories

L2240p Wide Flat Panel Monitor Name Case color Business black Type-model 4422-HB6 Panel TFT-LCD, twisted nematic (TN), CCFL backlight **22.0"** (**559mm**) diagonal 18.65" x 11.66" (473.8mm x 296.1mm) **1680x1050** at 60Hz Viewable image size Max view area (W x H) Optimum resolution Maximum resolution 1680x1050 at 75Hz (190MHz max pixel rate) Aspect ratio 16:10 Pixel pitch (mm) .282mm Dot/Pixel per Inch 98 dpi Brightness 250 nits or cd/m2 (typical) Contrast ratio 1000:1 (typical) Pixel response time 5ms (typical) Color gamut 72% Anti-reflective Anti-reflective, anti-glare Vertical frequency 50 to 75Hz Horizontal frequency 30 to 83kHz Viewing angle at 10:1 CR 160° (+/- 80°) horizontal, 160° (+/- 80°) vertical 160° (+/- 80°) horizontal, 160° (+/- 80°) vertical
Tilt, swivel, pivot, and height adjustable stand
Sides: 0.69" (17.5mm); top: 0.72" (18.3mm);
bottom: 1.11" (28.3mm)
14.9-19.2" H x 20.1" W x 7.4-9.5" D;
378.8-488.8mm H x 510.3mm W x 188-241.1mm D
21 watts typical, 31 watts maximum, Stand Bezel width

Power supply

<1 watts standby/suspend, universal, integrated (no external brick-like power supply)

14 lb; 6.35kg Weight

Dimensions (HxWxD)

Limited warranty4 3 year (includes backlight)

October 2008 Available date

VESA DDC2B/CI, VESA DPMS-compliant VESA-compliant<sup>2</sup>

ENERGY STAR®3 5.0 Power management **Ergonomics** 

Pixel defect

**Emission standards** 

ENERGY START=5.0 ISO 13406 Part 2¹ ISO 13406-2 Class II pixel defect standard MPR-2. MPR-3A, FCC Class B TCO 03, WEEE, RoHS (EU Directive 2002/95/EC), EPEAT™ Gold rating, GREENGUARD® certified **Environmental** 

Preset resolutions 640x350, 640x480, 720x400

SVGA: 800x600 XGA:

1024x768,1152x864 1280x1024 SXGA: WXGA+: 1440x900

UXGA: 1600x1000 WSXGA+: 1680x1050

Standard presets: 22; user settings: 20 Presets / user settings

Tilt: 30° back, 0° forward; lift: 4.3" (110mm); swivel: +/-45°; detachable stand

Viewing adjustments Screen pivots 90 degrees from landscape to portrait (requires image rotation support from graphics controller), Rotating screen On screen display On screen display with digital user controls (8 languages)

Control features

Direct access (buttons on front) for automatic image setup

Multiple input (two different PCs attach to two different connectors; one PC shows image; select via button) Multiple input

Monitor connectors

(1) VGA 15-pin D-shell, analog, blue (2) Digital Visual Interface (DVI-D), digital, white, **HDCP-compliant** (1) detachable, VGA 15-pin D-shell at each end, anal (2) detachable, DVI-D at each end, digital, 2.2 meter Signal cables detachable, VGA 15-pin D-shell at each end, analog, 2.2 meter

Wall or desk mounting using the Radial Arm<sup>9</sup> or third-party accessories meeting the VESA FPMPMI® (100mm mount) Security keyhole for attachment of optional cable lock (Kensington® lock-compatible) Mounting features Security

Monitor, attached stand, cable cover, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, 2.2 meter analog signal cable, 2.2 meter digital signal cable, 1.8 meter black power cord Ship group

#### **Limited Warranty**

- 3 year limited warranty<sup>4</sup>
- International Warranty Service<sup>5</sup>
- Rapid Replacement Service at 1-800-IBM-SERV (426-7378)
- Replacement normally arrives in two business days, excluding holidays
- Lenovo pays all shipping costs for valid warranty claims<sup>6</sup>
- Service upgrade options:7
  - 3 year, on site exchange, Mon-Fri 9-5 with next day response (ThinkPlus™ part number 41C9209)
  - 3 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9212)
  - 4 year, on site exchange, Mon-Fri 9-5 with next day response (41C9233)
  - 4 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9234)
  - 4 year, mail exchange (51J0589)
  - 5 year, mail exchange (51J0590)
- 24x78 day toll-free support for warranty issues during the warranty period4

#### **Features**

- Widescreen 22-inch monitor
- Supports WSXGA+ 1680x1050 resolution
- Ergonomic stand tilts, swivels, pivots and provides a 4.3" (110mm) range height adjustment for comfortable viewing
- Detachable rear stand cable cover and clip to hide cables
- · Carrying handle
- 65% recycled packaging materials
  Microsoft® Windows® Vista® certified



#### Accessories

ThinkVision USB Soundbar 40Y7616 Kensington® Cable Lock from Lenovo 73P2582 Kensington Twin Head Cable Lock 45K1620 ThinkPad Convertible Monitor Stand 40Y7620 ThinkVision TFT Radial Arms 19K4464

See details at www.lenovo.com/support/monitoraccessories

Name L2440p Wide Flat Panel Monitor Case color Business black Type-model 4420-HB2 Panel TFT-LCD, twisted nematic (TN), CCFL backlight **24.0"** (**610mm**) diagonal 20.4" x 12.8" (518.4mm x 324.0mm) Viewable image size Max view area (W x H) Optimum resolution 1920x1200 at 60Hz Maximum resolution 1920x1200 at 60Hz (205MHz max pixel rate) Aspect ratio Pixel pitch (mm) .270mm Dot/Pixel per Inch 94 dpi Brightness 300 nits or cd/m2 (typical) Contrast ratio 1000:1 (typical) Pixel response time 5ms (typical) Color gamut 72% Anti-reflective Anti-reflective, anti-glare Vertical frequency 50 to 75Hz Horizontal frequency 30 to 94kHz Viewing angle at 10:1 CR 170° (+/- 85°) horizontal, 160° (+/- 80°) vertical Tit, swivel, pivot, and height adjustable stand Sides: 0.78" (19.9mm); top: 0.78" (19.9mm); bottom: 1.12" (28.4mm) 15.54-19.87" H x 22" W x 8.04-10.13" D; 204.9 504.9 mm W x 204.2 357 ( Stand Bezel width Dimensions (HxWxD) 394.8-504.8mm H x 559.6mm W x 204.3-257.3mm D 35 watts typical, 50 watts maximum, Power supply <1 watts standby/suspend, universal, integrated (no external brick-like power supply) 17.84 lb; 8.09kg Weight Limited warranty4 3 year (includes backlight) October 2008 Available date VESA DDC2B/CI, VESA DPMS-compliant VESA-compliant<sup>2</sup> Power management ENERGY STAR®3 5.0 ISO 13406 Part 2¹ ISO 13406-2 Class II pixel defect standard MPR-2. MPR-3A, FCC Class B TCO 03, WEEE, RoHS (EU Directive 2002/95/EC), EPEAT™ Gold rating, GREENGUARD® certified **Ergonomics** Pixel defect **Emission standards Environmental** Preset resolutions 640x350, 640x480, 720x400 SVGA: 800x600 XGA: 1024x768,1152x864 SXGA: 1280x1024

#### **Features**

- Widescreen 24-inch monitor
- Supports WUXGA 1920x1200 resolution
- High Definition (HD) ready; supports 1080p video
- Ergonomic stand tilts, swivels, pivots and provides a 4.3" (110mm) range height adjustment for comfortable viewing Detachable rear stand cable cover and clip to hide cables
- · Carrying handle
- 65% recycled packaging materials
  Microsoft® Windows® Vista® Premium certified



WUXGA: 1920x1200 ThinkVision L2440p Wide Monitor Presets / user settings Standard presets: 27; user settings: 20 Tilt: 30° back, 0° forward; lift: 4.3" (110mm); swivel: +/-45°; detachable stand Screen pivots 90 degrees from landscape to portrait (requires image rotation support from graphics controller), Viewing adjustments Rotating screen On screen display with digital user controls (8 languages) On screen display Direct access (buttons on front) for automatic image setup USB 2.0 Hub (1 port into PC, 4 ports for accessories)

Multiple input (two different PCs attach to two different connectors; one PC shows image; select via button) Control features USB hub Multiple input (1) VGA 15-pin D-shell, analog, blue (2) Digital Visual Interface (DVI-D), digital, white, **HDCP-compliant** Monitor connectors Signal cables (1) detachable, VGA 15-pin D-shell at each end, analog, 2.2 meter (2) detachable, DVI-D at each end, digital, 2.2 meter
Wall or desk mounting using the Radial Arm<sup>9</sup> or third-party accessories meeting the VESA FPMPMI® (100mm mount) Mounting features Security keyhole for attachment of optional cable lock (Kensington® lock-compatible) Security Monitor, attached stand, cable cover, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide and monitor installation files, 2.2 meter analog signal cable, 2.2 meter digital signal cable, 2.2 meter USB cable, Ship group

# 1.8 meter black power cord **Limited Warranty**

- 3 year limited warranty<sup>4</sup>
- Rapid Replacement Service at 1-800-IBM-SERV (426-7378)

WXGA:

UXGA:

WXGA+:

WSXGA+:

1360x768

1440x900

1600x1200

1680x1050

- Replacement normally arrives in two business days, excluding holidays
- Lenovo pays all shipping costs for valid warranty claims6
- Service upgrade options:7
  - 3 year, on site exchange, Mon-Fri 9-5 with next day response (ThinkPlus™ part number 41C9209)
  - 3 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9212)
  - 4 year, on site exchange, Mon-Fri 9-5 with next day response (41C9233)
  - 4 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9234)
  - 4 year, mail exchange (51J0589)
  - 5 year, mail exchange (51J0590)
- 24x78 day toll-free support for warranty issues during the warranty period4

#### **Accessories**

ThinkVision Soundbar 45K1263 Kensington® Cable Lock from Lenovo Kensington Twin Head Cable Lock 73P2582 45K1620 ThinkPad Convertible Monitor Stand 40Y7620 19K4464 ThinkVision TFT Radial Arm9

See details at www.lenovo.com/support/monitoraccessories

L2440x Wide Flat Panel Monitor Name Case color **Business black** Type-model 4421-HB2 Panel TFT-LCD, twisted nematic (TN), white LED backlight

**24.0"** (**610mm**) diagonal 20.4" x 12.8" / 518.4mm x 324.0mm Viewable image size Max view area (W x H)

Optimum resolution 1920x1200 at 60Hz Maximum resolution 1920x1200 at 60Hz (205MHz max pixel rate)

Aspect ratio Pixel pitch (mm) .270mm Dot/Pixel per Inch 94 dpi

Brightness 300 nits or cd/m2 (typical) Contrast ratio 1000:1 (typical)

Pixel response time 5ms (typical) Color gamut 72%

Anti-reflective Anti-reflective, anti-glare Vertical frequency 50 to 75Hz

Horizontal frequency 30 to 94kHz

Viewing angle at 10:1 CR 170° (+/- 85°) horizontal, 160° (+/- 80°) vertical Tilt, swivel, pivot, and height adjustable stand Sides: 0.78" (19.9mm); top: 0.78" (19.9mm); bottom: 1.12" (28.4mm) 15.54-19.87" H x 22" W x 8.04-10.13" D; Stand Bezel width

Dimensions (HxWxD)

394.8-504.8mm H x 559.6mm W x 204.3-257.3mm D 29 watts typical, 45 watts maximum. Power supply

<1 watts standby/suspend, universal,

integrated (no external brick-like power supply) 17.16 lb; 7.78kg Weight

Limited warranty4 3 year (includes backlight) Available date October 2008

VESA DDC2B/CI, VESA DPMS-compliant VESA-compliant<sup>2</sup>

ENERGY STAR®3 5.0 Power management Ergonomics

ISO 13406 Part 21 ISO 13406-2 Class II pixel defect standard Pixel defect

**Emission standards** 

MPR-2. MPR-3A, FCC Class B
TCO 03, WEEE, RoHS (EU Directive 2002/95/EC),
EPEAT™ Gold rating, GREENGUARD® certified **Environmental** 

Preset resolutions 640x350, 640x480, 720x400

SVGA: 800x600 XGA: 1024x768,1152x864

SXGA: 1280x1024 WXGA: 1360x768 WXGA+: 1440x900 UXGA: 1600x1200 WSXGA+: 1680x1050 WUXGA: 1920x1200

Presets / user settings Standard presets: 27; user settings: 20

Viewing adjustments Rotating screen On screen display Control features USB hub

Signal cables

Tilt: 30° back, 0° forward; lift: 4.3" (110mm); swivel: +/-45°; detachable stand

Screen pivots 90 degrees from landscape to portrait (requires image rotation support from graphics controller) On screen display with digital user controls (8 languages)

Direct access (buttons on front) for automatic image setup USB 2.0 Hub (1 port into PC, 4 ports for accessories)

Multiple input (three different PCs attach to three different connectors; one PC shows image; select via button)

Multiple input Monitor connectors

(1) VGA 15-pin D-shell, analog, blue (2) Digital Visual Interface (DVI-D), digital, white, **HDCP-compliant** (3) DisplayPort, digital, black, **HDCP-compliant** 

(1) detachable, DVI-D at each end, anal (2) detachable, DVI-D at each end, digital, 2.2 meter detachable, VGA 15-pin D-shell at each end, analog, 2.2 meter

(3) detachable, DisplayPort at each end, digital, 2.2 meter
Wall or desk mounting using the Radial Arm<sup>9</sup> or third-party accessories meeting the VESA FPMPMI® (100mm mount)
Security keyhole for attachment of optional cable lock (Kensington® lock-compatible) Mounting features Security

Monitor, attached stand, cable cover, Setup poster, Safety and Warranty Information, CD with multilingual User's Guide Ship group and monitor installation files, 2.2 meter analog signal cable, 2.2 meter digital signal cable, 2.2 meter DisplayPort cable, 2.2 meter USB cable, 1.8 meter black power cord

#### **Limited Warranty**

- 3 year limited warranty<sup>4</sup>
- International Warranty Service<sup>5</sup>
- Rapid Replacement Service at 1-800-IBM-SERV (426-7378)
- Replacement normally arrives in two business days, excluding holidays
- Lenovo pays all shipping costs for valid warranty claims<sup>6</sup>
- Service upgrade options:7
  - 3 year, on site exchange, Mon-Fri 9-5 with next day response (ThinkPlus™ part number 41C9209)
  - 3 year, on site exchange, 7 day x 24 hr with 4 hour response (41C9212)
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- 24x78 day toll-free support for warranty issues during the warranty period4

#### **Features**

- Widescreen 24-inch monitor with white LED backlight
- Supports WUXGA 1920x1200 resolution
- High Definition (HD) ready; supports 1080p video
- Ergonomic stand tilts, swivels, pivots and provides a 4.3" (110mm) range height adjustment for comfortable viewing Detachable rear stand cable cover and clip to hide cables
- · Carrying handle
- Mercury and arsenic free
- Low halogen with trace levels of BFR, CFR, and PVC 12
- 65% recycled packaging materials
   Microsoft® Windows® Vista® Premium certified



ThinkVision L2440x Wide Monitor

# Accessories

ThinkVision Soundbar 45K1263 Kensington® Cable Lock from Lenovo 73P2582 Kensington Twin Head Cable Lock 45K1620 ThinkPad Convertible Monitor Stand 40Y7620 ThinkVision TFT Radial Arm9 19K4464

See details at www.lenovo.com/support/monitoraccessories

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

**Warranty:** For a copy of applicable product warranties, write to: Warranty Information, P.O. Box 12195, RTP, NC, 27709, Attn: Dept ZPYA/B676. Lenovo makes no representation or warranty regarding third party products or services.

- 1 ISO-compliant: Compliance with ISO 9241 Part 3, ISO Part 7, ISO Part 8, and/or ISO 13406 Part 2 is dependent on a complete ISO-capable platform of a system unit, monitor, video subsystem, operating system and fonts.
- <sup>2</sup> VESA: Requires attachment to suitably configured system with similarly enabled operating system.
- <sup>3</sup> ENERGY STAR: As an ENERGY STAR partner, Lenovo has determined that this product meets the ENERGY STAR 4.0 or 4.1 guidelines for energy efficiency. Requires attachment to suitably configured system.
- Limited warranty: Support unrelated to a warranty issue may be subject to additional charges.
- International Warranty Service is available in any country in which this product is sold and serviced. Service delivery methods and parts availability vary by country, may be different from that in the country of purchase, and are subject to change without notice. Fees and restrictions may apply in some countries.
- 6 Lenovo pays all shipping costs for warranty repairs during limited warranty period.

- 7 ThinkPlus and Lenovo Care Services: These services are available for machines normally used for business, professional, or trade purposes, rather than personal, family, or household purposes. Not all machine types and models are covered. Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. Service levels are response time objectives and are not guarantees. If the machine problem turns out to be a Customer Replaceable Unit (CRU), a part will be express shipped to you for quick replacement. Onsite 24x7x2-hour service is not available in all locations. P&L means parts and labor. P/U means pick-up. See terms and conditions for complete details and restrictions.
- 8 Telephone support may be subject to additional charges, even during the limited warranty period. In the United States call 1-800-426-7378. Response times may vary. May exclude some holidays. If a machine is listed as having "On-site service for select repairs", this means that onsite service is available only for the replacement of select parts. For all other warranty repairs, Lenovo will provide the customer a replacement part for customer installation. The parts for which onsite service is available varies by machine, but may include the processor, power supply, heat sink, system board, or base cover. For machines with EasyServ or Courier service, Lenovo will attempt to diagnose and resolve the problem remotely before sending a courier.
- <sup>9</sup> Radial Arm Kit: Designed for business environment; radial arm must be installed in accordance with instructions provided.
- TAA: Monitor is compliant with the U.S. Federal Government's country-of-origin requirements prescribed in 48 C.F.R. Subpart 25.4; Trade Act Agreement (TAA) model
- 11 Post-warranty annual maintenance agreement: Service begins at the end of the base warranty or the end of any other applied warranty and maintenance option, whichever occurs last. Service delivery is not available the same day the maintenance agreement is purchased. Maintenance agreements must be purchased and the registration successfully completed prior to the service being available.
- <sup>12</sup> Halogen: Less than 900 Parts Per Million. Low halogen is defined in accordance with IPC-401B and draft IPC-J-STD 709 Class 1 requirements.



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Visit www.lenovo.com/psref for the latest version of Personal Systems Reference.

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