

**SOPHISTICATED DESIGN.
OUTSTANDING PERFORMANCE.
KNOCKOUT LOOKS.**

THINKVISION MONITORS OFFERING COMPARISON GUIDE



lenovo

THE VALUE OF INNOVATION IS EASY TO SEE.



ThinkVision L171p flat panel monitor with soundbar.

ThinkVision® monitors couple innovative technology with outstanding design—exactly what you would expect from the perfect complement to a ThinkCentre® or ThinkPad® system. The ThinkVision family comprises a complete range of choices, from essential monitors for general business to sleek new models that offer outstanding ergonomics and usability.

Designed to exacting standards of performance and quality, ThinkVision monitors are a smart investment for today and for the future.

New thinking. New vision.

ThinkVision monitors are now products of Lenovo, a new global company incorporating the former IBM® PC Division. Our mission is to bring more innovation to more people so they can do more amazing things. Find out more at lenovo.com

Multiple monitors. Because sometimes more is more.

Multi-monitoring—connecting more than one monitor to a single computer—lets users view more information and extend their workspaces. A wider view of word processing documents and spreadsheets helps improve overall productivity and reduces errors. In fact, a productivity study¹ found that multi-monitor users completed tasks 7% faster and reported a 33% reduction in errors. For ThinkPad notebook configurations, simply attach an additional monitor to the integrated VGA port or to an optional ThinkPad Dock, Mini-Dock or Port Replicator. The Presentation Director utility includes an intuitive interface that makes configuration easy.



ThinkPad T60 notebook shown with ThinkPad Essential Port Replicator and ThinkVision L171 flat panel monitor (sold separately).

ThinkVision flat panel monitors: slim, beautiful and so much more.

These stylish models are actually a smart choice for plenty of reasons beyond aesthetics:

They consume less power and space than comparable CRT monitors. They're built to exacting, component-quality standards. They undergo extensive compatibility testing. They feature easy-to-access controls, intuitive interfaces and, on select models, pivoting* ergonomic stands. And they're covered by a three-year limited warranty², including the backlight.

* Graphics card-dependent.

p stands for performance.

For the most ergonomic ThinkVision monitors, consider performance series flat panel models, ranging in size from 15"–20" (381-511mm). Each features a stand that swivels, tilts and lifts to your liking.

p stands for comfort.

Ergonomic monitor stands provide optimal viewing positions.

p stands for connectivity.

Digital and analog inputs offer flexibility, and dual video inputs allow connection of two systems to a single monitor.

p stands for usability.

Viewing angles up to 178°, high-contrast ratios and pivot deliver outstanding ease of use.

p stands for easy.

Easy Access buttons on the bezel make common adjustments uncommonly simple, while onscreen displays offer intuitive control of monitor settings.

For important warranty information, see page 8.



MATCH YOUR MONITOR TO THE WAY YOU WORK.

Professional Graphics



L192p

L201p

Possible uses: CAD/CAM/CAE, Desktop Publishing, Web Design, Video Editing, Trading Floor, Digital Content Creation, Imaging

General Business



E74

C170

L151p

L171

L190

Possible uses: Word Processing, Business Graphics, Basic Spreadsheets, Web Browsing

Advanced Business



C190

L171

L171p

L190

L192p

Possible uses: Complex Spreadsheets, Multitasking with Multiple Windows, High Data-Content Applications

Entry Business



E54

E74

L151

Possible uses: Customer Service, Reception Areas, Education, Reservations, Server Console Monitor

Accessories and upgrades



ThinkVision TFT Radial Arm (19K4464)
(monitor sold separately)



Kensington MicroSaver Security Cable Lock
from Lenovo* (73P2582)



ThinkVision USB Soundbar (40Y7616)

* Supports ThinkVision LCD monitors only. To further customize, choose from a variety of accessories and get the most out of your monitor. Visit thinkpad.com/us or thinkpad.com/ca for more inspiration.

A warranty worthy of your investment

ThinkVision monitors are backed by a limited warranty² and replacement policy that reflects a real commitment to quality. In the rare event that your monitor fails during the warranty period, a replacement will be shipped to you via express-delivery service—with shipping costs covered both ways for warranty repairs.

For important warranty information, see page 8.



CRT monitor specifications³:

Product/Series*	E54/CRT Essential	E74/CRT Essential	ThinkVision C170/CRT Essential	ThinkVision C190/CRT Essential
Model (Business Black)	6331P7N	6332PHN	6737P6N	6739P0N
Monitor size/Viewable image size	15" (381mm)/13.8" (350mm)	17" (431mm)/16.0" (406mm)	17" (432mm)/16.0" (406mm)	19" (483mm)/18.0" (457mm)
Monitor type	Shadow Mask	Shadow Mask	Full Flat Shadow Mask	Full Flat Shadow Mask
Recommended display mode	800x600 @85Hz	1024x768 @85Hz	1024x768 @ 85Hz	1280x1024 @85Hz
Maximum display mode	1280x1024 @60Hz	1280x1024 @60Hz	1600x1200 @65Hz	1600x1200 @75Hz
Technology				
Horizontal dot/pitch	0.24mm	0.23mm	0.22mm	0.22mm
Diagonal dot pitch	0.28mm	0.27mm	0.25mm	0.25mm
Vertical/horizontal frequency range	50-120Hz/30-69KHz	50-120Hz/30-696KHz	50-160Hz/30-85KHz	50-160Hz/30-96KHz
Maximum pixel frequency	110MHz	110MHz	135MHz	202MHz
Features⁴				
Anti-reflective/anti-static	•	•	•	•
ISO 9241-3/7/8 capable ⁵	•	•	•	•
TCO-compliant model	—	—	TCO-99	TCO-99
MPR-II compliant	•	•	•	•
VESA DDC Plug and Play enabled ⁴	1 and 2B	1, 2B and 2Bi	2B/2Bi	1 and 2B
VESA power management ⁶	•	•	•	•
Onscreen display (OSD) ⁷	• (5 languages)	• (6 languages)	• (5 languages)	• (5 languages)
Preset non-interlaced modes (VESA)				
640x480	60, 75, 85Hz	60, 75, 85Hz	60, 85Hz	75, 85Hz
800x600	60, 75, 85Hz	75, 85Hz	75, 85Hz	75, 85Hz
1024x768	60, 75, 85Hz	75, 85Hz	75, 85Hz	75, 85Hz
1280x1024	—	60Hz	75Hz	75, 85Hz
1600x1200	—	—	—	75Hz
1792x1344	—	—	—	—
1920x1440	—	—	—	—
2048x1536	—	—	—	—
Preset/user modes	10/08	10/08	9/15	15/13
Dimensions (HxWxD)	387x370x391mm (15.2x14.6x15.4")	400x400x412mm (15.7x15.7x16.2")	430x414x420mm (16.9x16.3x16.5")	468x456x458mm (18.4x18.0x18.0")
Weight	12.0kg (26.4 lb)	15.0kg (33.0 lb)	16.0kg (35.3 lb)	21.3kg (46.8 lb)
Operating environment	5–40° C, 10–90% humidity	0–40° C, 10–80% humidity	0–40° C, 10–80% humidity	5–40° C, 10–90% humidity
Storage environment	-20–45° C, 5–90% humidity	-20–45° C, 20–80% humidity	-20–60° C, 5–90% humidity	-20–65° C, 10–90% humidity
Power supply	90-264V AC, 50–60Hz	90-264V AC, 50-60Hz	90-264V AC, 50-60Hz	100-240V AC, 50-60Hz
Power consumption	75W (typical)	90W (typical)	70W (typical)	100W (typical)
Limited warranty²	3 years	3 years	3 years	3 years

* CRT Essential models offer standard business features for value-conscious customers.



ThinkVision flat panel monitor specifications:

Product/Series*	ThinkVision L151/TFT Essential	ThinkVision L151p/TFT Performance	ThinkVision L171/TFT Essential
Model (Business Black)	9205AB2	9205HB2	9417AB1
Display type	Active Matrix Thin Film Transistor (TFT) Liquid Crystal Display (LCD)	Active Matrix Thin Film Transistor (TFT) Liquid Crystal Display (LCD)	Active Matrix Thin Film Transistor (TFT) Liquid Crystal Display (LCD)
Specifications			
Monitor size	15.0" (381mm)	15.0" (381mm)	17.0" (432mm)
Brightness (typical)	250 cd/m3	250 cd/m3	270 cd/m3
Contrast ratio (typical)	450:1	450:1	500:1
Viewing angle (vertical/horizontal)	100°/120°	100°/120°	135°/140°
Response time (typical)	16ms	16ms	8ms
Pixel pitch	0.297mm	0.297mm	0.264mm
Display colors (maximum)	More than 16 million color combinations	More than 16 million color combinations	More than 16 million color combinations
Active display area (horizontal x vertical)	304x228mm (12.0x9.0")	304x228mm (12.0x9.0")	340x272mm (13.4x10.7")
ISO 13406-2 capable ⁵	•	•	•
TCO-compliant model	TCO-99	TCO-99	TCO-99
Functional features			
Native resolution	1024x768	1024x768	1280x1024
Video input	Analog	Analog or Digital	Analog
Dual input	—	15-pin D and DVI-D	—
Onscreen display (OSD) ⁷	• (6 languages)	• (6 languages)	• (6 languages)
VESA power management ⁶	ENERGY STAR	ENERGY STAR	ENERGY STAR
Display modes	VGA, SVGA, XGA	VGA, SVGA, XGA	VGA, SVGA, XGA, SXGA
Multimedia	Optional USB Soundbar	Optional USB Soundbar	Optional USB Soundbar
Physical features			
Signal cable (provided)	15-pin D to 15-pin D	15-pin D to 15-pin D	15-pin D to 15-pin D
Dimensions (HxWxD)	344x338x165mm (13.6x13.3x6.5")	471x338x213mm (18.5x13.3x8.4") max lift 361x338x213mm (14.2x13.3x8.4") max lift	382x367x162mm (15.0x14.4x6.4")
Weight	3.6kg (7.9 lb)	4.0kg (8.8 lb)	4.6kg (10.1 lb)
Height adjustment	—	110mm (4.3")	—
Tilt	0° forward, 30° backward	0° forward, 30° backward	4° forward, 30° backward
Swivel	—	45° left, 45° right	—
Pivot*	—	•	—
VESA Mount	100mm	100mm	100mm
Kensington Lock Slot	•	•	•
Operating environment	10–35° C, 10–80% humidity	10–35° C, 10–80% humidity	10–35° C, 10–80% humidity
Storage environment	-20–60° C, 10–90% humidity	-20–60° C, 10–90% humidity	-20–60° C, 5–95% humidity
Integrated power	•	•	•
Power supply	100–240V AC	100–240V AC	90–264V AC
Power consumption	30W (typical)	30W (typical)	40W (typical)
Limited warranty² (parts/labor/backlight)	3 years	3 years	3 years

* TFT Performance models offer tilt, swivel, and height adjustments, plus analog and digital system attachments. TFT Essential models offer space savings over comparable CRT monitors and ThinkVision quality at entry-level prices.
⁵ Graphics card-dependent.



ThinkVision flat panel monitor specifications:

Product/Series❖	ThinkVision L171p/TFT Performance	ThinkVision L190/TFT Essential	ThinkVision L192p/TFT Performance	ThinkVision L201p/TFT Performance
Model (Business Black)	9417HB2	9329AP9	9419HB2	9320HB1
Display type	Active Matrix Thin Film Transistor (TFT) Liquid Crystal Display (LCD)	Active Matrix Thin Film Transistor (TFT) Liquid Crystal Display (LCD)	Active Matrix Thin Film Transistor (TFT) Liquid Crystal Display (LCD)	Active Matrix Thin Film Transistor (TFT) Liquid Crystal Display (LCD)
Specifications	Monitor size 17.0" (432mm) Brightness (typical) 300 cd/m2 Contrast ratio (typical) 500:1 Viewing angle (vertical/horizontal) 130°/140° Response time (typical) 8ms Pixel pitch 0.264mm Display colors (maximum) More than 16 million color combinations Active display area (horizontal x vertical) 339x272mm (13.3x10.7") • ISO 13406-2 capable ⁵ TCO-compliant model TCO-99	19.0" (483mm) 250 cd/m2 500:1 140°/140° 12ms 0.29mm More than 16 million color combinations 379x304mm (14.9x11.9") • TCO-99	19.0" (483mm) 250 cd/m2 1000:1 170°/170° 20ms 0.29mm More than 16 million color combinations 378x303mm (14.9x11.9") • TCO-03	20.1" (511mm) 300 cd/m2 700:1 178°/178° 16ms 0.25mm More than 16 million color combinations 410x308mm (16.1x12.1") • TCO-03
Functional features	Native resolution 1280x1024 Video input Analog or Digital Dual input 15-pin D and DVI-D Onscreen display (OSD) ⁷ • (6 languages) VESA power management ⁶ ENERGY STAR Display modes VGA, SVGA, XGA, SXGA Multimedia Optional USB Soundbar	1280x1024 Analog — • (6 languages) ENERGY STAR VGA, SVGA, XGA, SXGA —	1280x1024 Analog or Digital 15-pin D and DVI-D • (6 languages) ENERGY STAR VGA, SVGA, XGA, SXGA Optional USB Soundbar	1600x1200 Analog or Digital 15-pin D and DVI-I • (6 languages) ENERGY STAR VGA, SVGA, XGA, SXGA, UXGA Optional USB Soundbar
Physical features	Signal cable (provided) 15-pin D to 15-pin D Dimensions (HxWxD) 493x371x212mm (19.4x14.6x8.3") max lift 383x371x212mm (15.1x14.6x8.3") min lift Weight 5.4kg (11.9 lb) Height adjustment 110mm (4.3") Tilt 0° forward, 30° backward Swivel 45° left, 45° right Pivot* • VESA Mount 100mm Kensington Lock Slot •	15-pin D to 15-pin D 413x408x222mm (16.2x16.1x8.7") 6.1kg (13.4 lb) — 0° forward, 40° backward — 100mm •	15-pin D to 15-pin D and DVI-D to DVI-D 507x408x225mm (20x16.1x8.9") max lift 397x408x225mm (15.6x16.1x8.9") min lift 6.0kg (13.2 lb) 110mm (4.3") 0° forward, 30° backward 45° left, 45° right — 100mm •	15-pin D to 15-pin D and DVI-D to DVI-D 521x443x248mm (20.5x17.4x9.8") max lift 411x443x248mm (16.2x17.4x9.8") min lift 8.5kg (19.0 lb) 110mm (4.3") 0° forward, 30° backward 45° left, 45° right — 100mm •
Operating environment	10–35° C, 10–80% humidity	10–35° C, 10–80% humidity	10–35° C, 10–80% humidity	10–35° C, 10–80% humidity
Storage environment	-20–60° C, 5–95% humidity	-20–60° C, 5–95% humidity	-20–60° C, 5–95% humidity	-20–60° C, 5–95% humidity
Integrated power	•	•	•	•
Power supply	90–264V AC	90–260V AC	90–260V AC	90–264V AC
Power consumption	35W (typical)	40W (typical)	40W (typical)	60W (typical)
Limited warranty² (parts/labor/backlight)	3 years	3 years	3 years	3 years

❖ TFT Performance models offer tilt, swivel, and height adjustments, plus analog and digital system attachments. TFT Essential models offer space savings over comparable CRT monitors and ThinkVision quality at entry-level prices.
For important warranty information, see footnotes on the back panel.

1 866 426-3079
lenovo.com

lenovo[™]

© 2006 Lenovo. Produced in the U.S.A., 01-06. All rights reserved. **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 Information:** 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. **Footnotes:** [1] **Source:** Anderson, et al. "Productivity and Multi-Screen Displays," University of Utah, 2004, sponsored by ATI Technologies, Inc. and NEC/Mitsubishi. [2] **Limited warranty:** Support unrelated to a warranty issue may be subject to additional charges. [3] **E74 and E54 models:** vary by country. Contact your sales representative for the model offered in your country. [4] **Requires attachment** to a suitably configured system with similarly enabled operating system software. [5] **ISO compliance:** is dependent on a complete ISO-capable platform of system unit, monitor, video subsystem, operating system and fonts. [6] **Energy Star:** As an Energy Star Partner, Lenovo has determined that this product meets the Energy Star guidelines for energy efficiency. [7] **User controls and OSD:** are available on analog models. Digital models require minimal user adjustment, offering fewer controls and onscreen displays. **Certain IBM® and ThinkPad logo products:** are not manufactured, warranted or supported by IBM or Lenovo; IBM and Lenovo logos and trademarks used under license. Contact Lenovo for details. This publication was developed for products and services offered in the United States. Lenovo may not offer the products, services or features discussed in this document in other countries. Information is subject to change without notice. Consult your local Lenovo representative for information on offerings available in your area. **The following are trademarks of Lenovo:** ThinkCentre, ThinkPad and ThinkVision. IBM and the IBM logo are registered trademarks of IBM and are used under license. Other company, product and service names may be trademarks or service marks of others.

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

MOB01735-WWEN-00

