New TopSeller Lenovo ThinkVision L2251x Wide Flat Panel Monitor -- The environmentally responsible choice

Table of contents

<table>
<thead>
<tr>
<th>2</th>
<th>Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Planned availability</td>
</tr>
<tr>
<td>3</td>
<td>Description</td>
</tr>
<tr>
<td>8</td>
<td>Product positioning</td>
</tr>
<tr>
<td>9</td>
<td>Product number</td>
</tr>
<tr>
<td>9</td>
<td>Technical information</td>
</tr>
<tr>
<td>16</td>
<td>Prices</td>
</tr>
<tr>
<td>16</td>
<td>Announcement countries</td>
</tr>
</tbody>
</table>

At a glance

The new Lenovo® ThinkVision® L2251x Wide LCD monitor offers:

- Viewable image size: 22.0 inch (559 mm)
- Brightness: 250 cd/m2 (typical)
- Contrast ratio: 1000:1 (typical)
- Viewing angles:
  - Horizontal:
    -- 170° contrast ratio greater than 10:1
    -- 176° contrast ratio greater than 5:1
  - Vertical:
    -- 160° contrast ratio greater than 10:1
    -- 170° contrast ratio greater than 5:1
- Response time: 5 ms (typical)
- Environmentally responsible:
  - Up to 33% less power consumption and 100% less mercury content (mercury free) than conventional LCD monitors with the same size and resolution
  - TCO Certified Edge Display 1.0 compliance
  - Rated EPEAT Gold
  - Arsenic-free glass and mercury free
  - Meets low halogen requirements
  - Pivot capable (graphics card dependent)
Overview

The Lenovo ThinkVision L2251x Wide enables you to be environmentally conscious without compromising performance. Pioneering new energy conservation and ergonomic technologies, the new L2251x Wide monitor is the world’s first TCO Certified Edge product. It is a low halogen², mercury-free product, has arsenic-free glass, and uses up to 33% less power than conventional models (29.7% more efficient than the ENERGY STAR 5.0 standard). 30% of the total weight of all plastics in the monitor consist of post-consumer content plastic resins and its packaging contains up to 92% recycled materials. With an ambient light sensor and a proximity sensor, the L2251x Wide can save more energy and make viewing more comfortable.

The L2251x Wide monitor is rated EPEAT Gold in the US, UK, France, Germany, China, Japan, and other countries. It is the ideal choice for mobile users in need of an excellent screen display for increased productivity when working at the office and an integrated Webcam solution to reduce travel time and expense.

The incorporated ThinkVantage® design enhances usability and makes the monitor easy to use. It complements the design of the ThinkPad® and ThinkCentre® systems, including attachments for the ThinkVision Soundbar (sold separately).

Features and benefits:

- 22 in (559 mm) viewable image size
- Native resolution of 1680 x 1050
- Internal power with 21 watts / 28 watts power consumption (typical/ maximum)
- mercury free and reduces power consumption by up to 33% over conventional monitors of the same size and resolution
- ThinkVantage design
  - Stand with tilt, swivel, and height adjustments for optimum viewing comfort
  - Pivot for portrait or landscape viewing (graphics card dependent)
  - Direct access button for automatic image setup and brightness allows quick and easy monitor setup
  - Analog and DisplayPort video signal connectors
  - Integrated USB hub
  - Supports High Definition Content Protection (HDCP)
  - Carrying handle for easy transport of monitor
- Compliance with ENERGY STAR 5.0 requirements
- Kensington Lock slot for security
- TCO Certified Edge Compliance
- Rated EPEAT Gold
- Attachment points for optional ThinkVision Soundbar (sold separately)
- Direct access for input selection allows easy movement between applications when attached to two systems simultaneously
- Matching design to ThinkPad, ThinkCentre, and ThinkStation® systems
- Analog and digital connectors allow attachment flexibility
- Wide viewing angles enlarge the workspace for comfortable viewing
- Dual input connectors allow attachment to two systems simultaneously
- Certified for Microsoft® Windows® XP, Vista, and Windows 7
- Meets 100 mm VESA standard for mounting
- Detachable base for wall- or arm-mounting (sold separately)
- Available in business black


2 Low halogen is defined in accordance with IPC-4101B and draft IPC-J-STD 709 Class 1 requirements.

3 As defined by EPEAT verification criteria for calculation of post-consumer recycled content. Many plastic parts used in this product consists of (by weight) 65% post-consumer content from sources like home appliances, computers, vehicles, and office equipment and 20% post-industrial content.

4 EPEAT registration status varies by location. For complete country listing, visit http://www.epeat.net

**Note:** The product can also be ordered by a 20’ (396 pieces) or a 40’ (828 pieces) container. This will be on a back to back basis, so the lead time will be at least 8 weeks from order placement to delivery.

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**Planned availability**

November 25, 2009

**Description**

**VESAs high refresh video signal timings**

This Lenovo ThinkVision L2251x Wide monitor supports a wide range of display modes, including a selection of the VESA timings of incoming video signals at up to 75 Hz (non-interlaced) for the following screen resolutions:

- 640 x 480
- 800 x 600
- 1024 x 768
- 1280 x 1024
- 1440 x 900
- 1600 x 1200
- 1680 x 1050
Appropriate video-adapter hardware and software must be installed in the attaching system unit (not included).

Monitors are compatible with popular Lenovo PC system units.

**VESPA Data Display Channel (DDC)**

This Lenovo ThinkVision L2251x Wide monitor supports the DDC protocol to level command interface (CI). Basic configuration information can be passed to a system unit from its attached monitor. Often referred to as Plug and Play, the protocol enables a DDC-enabled system unit to automatically configure the video adapter to drive the attached monitor at its optimum display mode without user intervention. For best use, the attaching system unit must also be hardware- and software-enabled for DDC operation.

The capabilities of the monitor are held in nonvolatile monitor memory in an encoded format. The data is received from the monitor by the system unit during boot-up and system configuration.

The extended display identification data (EDID) sent by the monitor to the attached system unit also includes the monitor’s serial number and other identification information. This can be held in the system unit until requested; for example, by a department local area network (LAN) administrator needing to assess the location of all equipment connected to the LAN.

Date information transmitted in the monitor EDID data conforms to VESA EDID standard V2. This requires the year of manufacture (YOM) to be stored in a one-byte field as an offset from 1990 as derived from the following equation:

\[
\text{Value stored} = (\text{YOM} - 1990)
\]

<table>
<thead>
<tr>
<th>Year of manufacture</th>
<th>Value stored</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>14</td>
</tr>
<tr>
<td>2005</td>
<td>15</td>
</tr>
<tr>
<td>2006</td>
<td>16</td>
</tr>
<tr>
<td>2007</td>
<td>17</td>
</tr>
</tbody>
</table>

An international industrial standard by the name of DDC/CI was developed by VESA to expand upon an existing DDC standard. This new standard adds control functionality without the need for additional connections.

The main advantage of DDC/CI is its bi-directional communication structure between PC and monitor, which does not require a separate cable. All data are transmitted in both directions via the video graphics card and the standard VGA or DisplayPort signal cable. This capability allows for functions like monitor control, adjustments, and diagnostics to be conducted via software using the mouse and keyboard. In an enterprise or firm, this capability also allows the potential of remote diagnostics and asset management by a technician via the LAN. Customer-supplied software is needed to implement these functions.

**International Organization for Standardization (ISO)/DIS 9241-307**

ISO 9241-307 ensures ergonomic requirements are met when the ThinkVision L2251x Wide LCD monitor forms part of an ISO-compliant system. ISO 9241-307 is an international standard addressing ergonomic factors for flat-panel displays.

ISO-capable elements do not necessarily make an ISO-compliant system when put together. To satisfy the requirements of ISO 9241-307, a complete platform must be tested and must comply with all applicable elements of ISO 9241-307. The platform includes:

- System unit
- Operating system
• Fonts
• Video subsystem
• Monitor
• Keyboard
• Mouse

When all contributing platform components satisfy their portion of the requirements, as verified by the required total system testing, the platform is ISO 9241-307 compliant.

Low frequency electromagnetic emissions

The Lenovo ThinkVision L2251x Wide LCD monitor meets the Swedish Board for Technical Accreditation (SWEDAC) MPR-2 requirements. MPR-2 is a guideline developed by the SWEDAC to limit the electromagnetic emissions and electrostatic fields generated by workstations.

Electric and magnetic fields with frequencies between 5 Hz and 2 kHz are called extremely low frequency (ELF) fields. Those with frequencies between 2 and 400 kHz are called very low frequency (VLF) fields.

TCO Certified Edge compliance

• Environment
• Ergonomics
• Usability
• Reduction of electric and magnetic fields
• Energy consumption
• Electrical safety

VESA Display Power Management Signaling (DPMS)

The Lenovo ThinkVision L2251x Wide LCD monitor meets ENERGY STAR power consumption requirements through implementation of the DPMS protocol. For effective power management, the attaching system unit must also be hardware- and software-enabled for DPMS operation.

As an ENERGY STAR Partner, Lenovo has determined that this product meets ENERGY STAR guidelines for energy efficiency.

HelpWare

HelpWare® is a comprehensive set of service and support offerings for a more productive and enjoyable computing experience. Many HelpWare services are included with the purchase of your Lenovo system, and additional services are available from the HelpWare support family.

Technical characteristics

<table>
<thead>
<tr>
<th>Feature</th>
<th>LCD monitor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitor Size</td>
<td>22.0-inch (559 mm)</td>
</tr>
<tr>
<td>Viewable image size</td>
<td>22.0-inch (559 mm)</td>
</tr>
<tr>
<td>Maximum viewable area (W x H)</td>
<td>437.8 mm x 290.1 mm</td>
</tr>
<tr>
<td>Native resolution</td>
<td>1680 x 1050</td>
</tr>
<tr>
<td>Contrast ratio (typical)</td>
<td>1000 : 1</td>
</tr>
<tr>
<td>Brightness (typical)</td>
<td>250 cd/m2</td>
</tr>
<tr>
<td>Colors</td>
<td>16.7 million</td>
</tr>
<tr>
<td>Horizontal viewing angle</td>
<td>170 degrees (at 10:1 contrast ratio)</td>
</tr>
<tr>
<td>Vertical viewing angle</td>
<td>160 degrees (at 10:1 contrast ratio)</td>
</tr>
<tr>
<td>Response time (typical)</td>
<td>5 ms</td>
</tr>
</tbody>
</table>
Pixel pitch                          0.282 mm
Video input                          15-pin D, DisplayPort
Signal cable - 15-pin D              1.8 m
Signal cable - DisplayPort           1.8 m
USB cable                            1.8 m
SYNC type                            Composite/Separate TTL
SYNC on green                        No
Bezel width (Side)                   15.3 mm
Tilt                                  0 degrees forward
                                      30 degrees backward
Swivel                                +/- 45 degrees
Height adjustment                     110 mm
Pivot                                 Yes (graphic card dependent)
Soundbar Attachment                   ThinkVision Soundbar
Webcam+Mic                             Yes
Kensington Lock slot                   Yes
User controls                         Digital
Lockable controls                     Yes
OSD                                    Yes
OSD languages                         8
Preset display modes                  24
User defined display modes            20
VESA DDC capable                      2B/CI
ISO 9241-307 capable                  Yes
Power management capable              Yes - VESA DPMS
Power supply                          Universal Voltage (100 to 240 Vac)
Power cord                            1.8 m (detachable)
JEIDA compliance                      Yes
FCC B compliance                      Yes
MPR-2 Emission compliance             Yes
TCO Certified Edge Compliance         Yes
EU Directive 2002/95/EC (RoHS)        Yes
EU Directive 2002/96/EC (WEEE)        Yes
EU Directive 2005/32/EC (EuP)         Yes

On-Screen Display (OSD) Menu Control

Digital user controls are located on the front bezel, to the left of the power pushbutton. Make adjustments in conjunction with the on-screen displays. With the exception of brightness, contrast, and auto adjust, you can lock the controls to prevent further changes. User setup values are stored automatically. For ease of use, there is direct access for auto setup and brightness.

Monitor controls and features include:

- Brightness/contrast
- Image position:
  - Horizontal position
  - Vertical position
- Image setup:
  - Automatic
  - Manual
  - Scaling
- Image properties: Color
- Options:
  - Information
  - Menu language
  - Menu position
  - Factory default
  - Accessibility
- Exit
OSD languages include: English, French, German, Italian, Spanish, Japanese, simplified Chinese, and Russian.
Indicators

The power indicator LED indicates the operational state of the monitor:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Operating state</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green LED</td>
<td>Normal operation</td>
</tr>
<tr>
<td>Amber LED</td>
<td>Active Off</td>
</tr>
<tr>
<td>Green blinking</td>
<td>Frequency out of range</td>
</tr>
</tbody>
</table>

The WebCam indicator LED indicates the operational state of the WebCam:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Operating state</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green LED</td>
<td>Normal operation</td>
</tr>
<tr>
<td>Off</td>
<td>No connection / off</td>
</tr>
</tbody>
</table>

Product positioning

The Lenovo ThinkVision L2251x Wide LCD monitor is a member of the ThinkVision Performance series flat-panel LCD monitor family. The flat-panel LCD family includes ThinkVision Performance and Lenovo Essential monitors. The Lenovo essential series offers quality monitors at affordable prices. The Performance series monitors include p and x models. The p models offer a wide range of adjustability, while x models add other specialized features, such as USB connectivity, wider viewing angles, and automatic pivot adjustment.

<table>
<thead>
<tr>
<th>Monitor type</th>
<th>Viewable Monitor size</th>
<th>Image size</th>
<th>Addressability (horizontal by vertical)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lenovo Essential</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D186 wide</td>
<td>2580</td>
<td>18.5-inch</td>
<td>18.5 inch (470 mm) 1366 x 768</td>
</tr>
<tr>
<td>D185 wide</td>
<td>6318</td>
<td>18.5-inch</td>
<td>18.5 inch (470 mm) 1366 x 768</td>
</tr>
<tr>
<td>L2060 Wide</td>
<td>2120</td>
<td>20.1-inch</td>
<td>20.1 inch (511 mm) 1600 x 900</td>
</tr>
<tr>
<td>L215 Wide</td>
<td>6325</td>
<td>21.5-inch</td>
<td>21.5 inch (546 mm) 1920 x 1080</td>
</tr>
<tr>
<td>ThinkVision Performance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L151</td>
<td>9165</td>
<td>15.0-inch</td>
<td>15.0-inch (381 mm) 1024 x 768</td>
</tr>
<tr>
<td>L174</td>
<td>9227</td>
<td>17.0-inch</td>
<td>17.0-inch (432 mm) 1280 x 1024</td>
</tr>
<tr>
<td>L1700p</td>
<td>9417</td>
<td>17.0-inch</td>
<td>17.0-inch (432 mm) 1280 x 1024</td>
</tr>
<tr>
<td>L1711p</td>
<td>5047</td>
<td>17.0-inch</td>
<td>17.0-inch (432 mm) 1280 x 1024</td>
</tr>
<tr>
<td>L197 wide</td>
<td>4434</td>
<td>19.0-inch</td>
<td>19.0-inch (481 mm) 1440 x 900</td>
</tr>
<tr>
<td>L1940p wide</td>
<td>4424</td>
<td>19.0-inch</td>
<td>19.0-inch (481 mm) 1440 x 900</td>
</tr>
<tr>
<td>L1900p</td>
<td>4431</td>
<td>19.0-inch</td>
<td>19.0-inch (483 mm) 1280 x 1024</td>
</tr>
<tr>
<td>L2250p wide</td>
<td>2572</td>
<td>22.0-inch</td>
<td>22.0-inch (569 mm) 1680 x 1050</td>
</tr>
<tr>
<td>L2251p wide</td>
<td>2572</td>
<td>22.0-inch</td>
<td>22.0-inch (569 mm) 1680 x 1050</td>
</tr>
<tr>
<td>L2240p wide</td>
<td>4422</td>
<td>22.0-inch</td>
<td>22.0-inch (569 mm) 1680 x 1050</td>
</tr>
<tr>
<td>L2251x wide</td>
<td>2578</td>
<td>22.0-inch</td>
<td>22.0-inch (569 mm) 1680 x 1050</td>
</tr>
<tr>
<td>L2440p wide</td>
<td>4420</td>
<td>24.0-inch</td>
<td>24-inch (610 mm) 1920 x 1200</td>
</tr>
<tr>
<td>L2440x wide</td>
<td>4421</td>
<td>24.0-inch</td>
<td>24-inch (610 mm) 1920 x 1200</td>
</tr>
</tbody>
</table>

ThinkVision flat-panel monitors by application:

<table>
<thead>
<tr>
<th>Application/Usage</th>
<th>Size/Resolution</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Purpose: Rugged, back</td>
<td>15&quot; (1024 x 768)</td>
<td>L151</td>
</tr>
<tr>
<td>office or infrequent usage</td>
<td>17&quot; (1280 x 1024)</td>
<td>L174</td>
</tr>
<tr>
<td></td>
<td>19&quot; wide (1440 x 900)</td>
<td>L197 wide</td>
</tr>
</tbody>
</table>
Advanced Business:
Business & mobile users with office
17" (1280 x 1024) L1700p, L1711p
19" (1280 x 1024) L1900p
19" Wide (1440 x 900) L1940p wide L1951p wide
22" Wide (1680 x 1050) L2240p wide L2250p wide L2251p wide
24" Wide (1920 x 1200) L2440p wide

Specialized Usage:
Narrow/slim head or bezel, most environmentally responsible offerings with bright vivid images
22" Wide (1680 x 1050) L2251x Wide

Product number

<table>
<thead>
<tr>
<th>Description</th>
<th>Machine type/model</th>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>TopSeller Lenovo ThinkVision L2251x Wide</td>
<td>2578-HN6</td>
<td>T78HNxx</td>
</tr>
</tbody>
</table>

Publications

The following publications are shipped with each monitor (2572HN6):

<table>
<thead>
<tr>
<th>Title</th>
<th>Part number</th>
<th>Languages</th>
</tr>
</thead>
<tbody>
<tr>
<td>User's Guide</td>
<td>57Y2409</td>
<td>U.S. English, French, Spanish, German, Italian, Japanese, Russian, Polish, Traditional Chinese, Simplified Chinese, Hungarian, Romanian, Slovakian, Slovenian, Korean, Turkish, Bulgarian, Arabic, Portuguese, Brazilian Portuguese, Arabic, Turkish</td>
</tr>
<tr>
<td>Setup Poster</td>
<td>57Y2410</td>
<td></td>
</tr>
<tr>
<td>Safety, Troubleshooting and Warranty Guide</td>
<td>41U5172</td>
<td></td>
</tr>
</tbody>
</table>

Technical information

Specified operating environment

Physical specifications
Dimensions and weight of the monitor and stand:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unpacked</th>
<th>Packed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>14.97 inch (380.3 mm)</td>
<td>9.17 inch (233 mm)</td>
</tr>
<tr>
<td>Width</td>
<td>19.92 inch (506.0 mm)</td>
<td>23.27 inch (591 mm)</td>
</tr>
<tr>
<td>Depth</td>
<td>9.50 inch (241.2 mm)</td>
<td>17.83 inch (453 mm)</td>
</tr>
<tr>
<td>Weight</td>
<td>12.39 lb (5.63 kg)</td>
<td>18.96 lb (8.62 kg)</td>
</tr>
</tbody>
</table>

Operating environment
Conservation: Energy can be saved by switching monitors off overnight and whenever they are not in use for extended periods during the day.
Power requirements

• Input voltage: 100 to 240 V ac +/- 10% (universal voltage)
• Frequency: 50/60 Hz
• Power consumption:
  - Maximum: 28 watts
  - Typical: 21 watts typical
  - Standby: <1 watts
  - Suspend: <1 watts
  - Off: <0.5 watts at 100 V ac
• Maximum earth leakage current:
  -- <3.5 mA at 264 Vac
  -- <0.25 mA at 100 Vac

Typical power consumption is tested under EPA 5.0 standard.

Actual power consumption depends on the chosen display mode, the images displayed, and user control settings.

Ambient temperature and relative humidity

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Temperature</th>
<th>Relative humidity</th>
<th>Altitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating</td>
<td>0 to 40 deg.C</td>
<td>10 to 80 %</td>
<td>0 to 8,000 ft</td>
</tr>
<tr>
<td>Shipping</td>
<td>-20 to 60 deg.C</td>
<td>5 to 95 %</td>
<td>0 to 40,000 ft</td>
</tr>
<tr>
<td>Storage</td>
<td>-20 to 60 deg.C</td>
<td>5 to 95 %</td>
<td>0 to 40,000 ft</td>
</tr>
</tbody>
</table>

Acoustics: Declared acoustical noise emissions LWAU = 4.5 bels or less. The noise emission level stated is the declared (upper limit) A-weighted sound power level, in bels, for a random sample of monitors. All measurements are made in accordance with ANSI S12.10 and reported in conformance with ISO/DIS 7779.

Emissions:

All models meet the Swedish Board for Technical Accreditation (SWEDAC) emission guidelines contained in MPR 1990:10 when tested using the MPR 1990:08 test method.

All models meet TCO Display 5.0 Environmental Label from the Swedish Confederation of Professional Employees (TCO), and the emission, power management, and electrical safety requirements of the Environmental Label.

Ergonomics

Compliance to the ISO standard ISO/DIS 9241-307 provides that ergonomic requirements are met when the monitor forms part of an ISO-compliant system.

Regulatory agency approvals

• Safety
  - UL (U.S.)
  - CSA/cUL (Canada)
  - IEC950 CB Report
  - NEMKO (Norway)
  - TUV (Germany)
  - TUV-S (Argentina)
  - CCC (China)
  - NOM (Mexico)
Environmental/energy/ergonomic/compatibility approvals

- Emissions:
  - TCO Certified Edge
  - MPR-2 (Sweden)
- Power management: ENERGY STAR 5.0 (United States)
- Ergonomics:
  - ISO 9241-307
- Environmental:
  - EU Directive 2002/95/EC (RoHS)
  - China Energy Efficiency Standard Tier 1
  - WEEE
  - e-stanby (Korea)
  - EPEAT Gold
  - RoHS/China RoHS/Turkey RoHS
- Software: Windows Hardware Logo Program

Hardware requirements

The Lenovo ThinkVision L2251x Wide flat panel monitor operates with system units or video adapters that generate a video output signal falling within the following specification:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Native Resolution</td>
<td>1680 x 1050 pixels</td>
</tr>
<tr>
<td>Maximum pixel rate</td>
<td>VGA: 205 Mhz, DP: 10.8 Gbps</td>
</tr>
</tbody>
</table>

The monitor supports VESA Standard Timings as detailed in "Display Monitor Timing Specification," Version 1.8, dated September 17, 1998, for the following modes:
• VGA: 640 x 480 at 60, 66, 72, and 75 Hz
• SVGA: 800 x 600 at 60, 72, and 75 Hz
• XGA: 1024 x 768 at 60, 70, and 75 Hz
• SXGA: 1280 x 1024 at 60, 72 and 75 Hz
• WXGA: 1440 x 900 at 60, 75 Hz
• UXGA: 1680 x 1050 at 60, 75 Hz

This monitor supports the following modes:

• 640 x 350 at 70 Hz
• 640 x 500 at 58 Hz
• 720 x 400 at 70 Hz
• 1152 x 864 at 75Hz
• 1360 x 768 at 60Hz
• 1600 x 1000 at 60Hz

National language support is a function of the video adapter in the system unit and the application or support software.

**Software requirements**

The monitor features preset display modes. The actual display modes used depend on the attaching system unit, the operating system, and application software.

• Microsoft Windows XP
• Microsoft Windows Vista
• Microsoft Windows 7

**Preset display modes**

<table>
<thead>
<tr>
<th>Addressability</th>
<th>Incoming video</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Horizontal x Vertical)</td>
<td>Refresh Rate</td>
</tr>
<tr>
<td>640 x 350 pixels</td>
<td>70 Hz</td>
</tr>
<tr>
<td>640 x 480 pixels</td>
<td>60 Hz</td>
</tr>
<tr>
<td>640 x 480 pixels</td>
<td>66 Hz</td>
</tr>
<tr>
<td>640 x 480 pixels</td>
<td>72 Hz</td>
</tr>
<tr>
<td>640 x 480 pixels</td>
<td>75 Hz</td>
</tr>
<tr>
<td>720 x 400 pixels</td>
<td>70 Hz</td>
</tr>
<tr>
<td>800 x 600 pixels</td>
<td>60 Hz</td>
</tr>
<tr>
<td>800 x 600 pixels</td>
<td>72 Hz</td>
</tr>
<tr>
<td>800 x 600 pixels</td>
<td>75 Hz</td>
</tr>
<tr>
<td>1024 x 768 pixels</td>
<td>60 Hz</td>
</tr>
<tr>
<td>1024 x 768 pixels</td>
<td>70 Hz</td>
</tr>
<tr>
<td>1024 x 768 pixels</td>
<td>75 Hz</td>
</tr>
<tr>
<td>1152 x 864 pixels</td>
<td>75 Hz NI</td>
</tr>
<tr>
<td>1280 x 1024 pixels</td>
<td>60 Hz</td>
</tr>
<tr>
<td>1280 x 1024 pixels</td>
<td>72 Hz</td>
</tr>
<tr>
<td>1280 x 1024 pixels</td>
<td>75 Hz</td>
</tr>
<tr>
<td>1440 x 900 pixels</td>
<td>60 Hz</td>
</tr>
<tr>
<td>1440 x 900 pixels</td>
<td>75 Hz</td>
</tr>
<tr>
<td>1600 x 1000 pixels</td>
<td>60 Hz</td>
</tr>
<tr>
<td>1680 x 1050 pixels</td>
<td>60 Hz</td>
</tr>
<tr>
<td>1680 x 1050 pixels</td>
<td>75 Hz</td>
</tr>
</tbody>
</table>

• User modes: 20

The preset modes cannot be overwritten, but can be adjusted to personal choice. The new settings are stored automatically in one of the user locations and are recalled each time that mode is used. The factory settings for the mode in use, if any, can be restored by operating the reset control.
Information about the current incoming display mode is shown in the on-screen displays. However, it is displayed at the LCD panel's optimum refresh rate of 60 Hz.

It may be necessary to make some adjustments to the displayed image to compensate for variations in video signal timings. The user controls can be used to make these adjustments.

**Compatibility**

The monitor is supplied with a detachable 1.8-meter video signal cable. This cable has the widely used 15-pin, D-Sub video connector for system unit connection.

This model has been tested with ThinkPad and ThinkCentre systems. It is compatible with systems and graphics adapters that comply with the relevant parts of "VESA and industry standards and guidelines for computer display monitor timing" Version 1.8, adopted September 17, 1998. Supported display modes and number of colors are a function of the attaching system unit. The full range of display modes, refresh rates, and number of colors available with this monitor may not be available or supported with all combinations of system units, their operating systems, and application software. Implementation of monitor plug and play follows the VESA DDC standard. This standard must also be implemented in the attaching system unit hardware and software to be effective.

**Limitations**

- Supported display modes are a function of the attaching system unit and video subsystem. The full range of display modes available with these monitors may not be available or supported with all combinations of system units, their operating systems, video adapter cards, and application software.
- Horizontal- and vertical-synchronization signal timings are critical in order to achieve acceptable screen images. As a consequence, support for all possible variations in H- and V-sync timings for any display mode cannot be assumed.
- Adjustment of the user controls to enlarge the image to its maximum size requires that the signal timings of the display mode being used fall within the monitor-timing specifications.
- This monitor provides FCC class B - residential installation - compliance in all display modes.
- Implementation of monitor power management follows the VESA DPMS standard. This standard must also be implemented in the attaching system unit hardware and software for monitor power management to be effective. The system implementation must provide user-adjustable, power-down delay periods. The monitor power management function is invoked only after appropriate signals are received from an attached system unit or video adapter.
- Implementation of monitor Plug and Play follows the VESA DDC standard. This standard must also be implemented in the attaching system unit hardware and software for monitor Plug and Play to be effective.
- Certain functions require the system unit to be similarly configured, so all monitor functions may not be enabled when attached to a particular system unit.
- A 22.0-inch (558.8 mm) flat-panel LCD monitor has nearly 5.3 million subpixel transistors laid over an area exceeding 217 square inches. Cost-effective manufacturing processes introduce a small number of defective subpixel transistors. The Lenovo ThinkVision L2251x Wide meets the ISO 9241-307 Pixel Defect follows:
- The Auto-Setup "test pattern" can be used with Microsoft Windows XP, Windows Vista, Windows 7, and DOS 7.0 only.

**Planning information**

**Cable orders**

No additional cables are required. A 1.8-m (5.9-ft) power cord appropriate to the country will be supplied by Lenovo.
**Shipment group**
- One monitor
- An attached stand that provides tilt
- An attached 1.8 m (5.9 ft) analog video cable (15-pin D to 15-pin D)
- An detached 1.8 m (5.9 ft) DisplayPort video cable
- An detached 1.8 m (5.9 ft) USB cable
- A power cord
- Setup Guide
- Safety and Warranty Information

With the exception of the models for U.S., Canada, and Japan, the power cords (based on the country order code) are supplied by distribution centers.

**Security, auditability, and control**

These products use the security and auditability features of the system unit to which they are attached.

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communications facilities.

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**Terms and conditions**

To obtain copies of the Lenovo Statement of Limited Warranty, contact your reseller or Lenovo.

**Warranty period**

Three years

**Warranty service**

**Customer Carry-in or Mail-in using Rapid Replacement Service**

If warranty service is required, call the Customer Support Center. The Customer Support Center will assist with problem determination and initiate shipment of a replacement unit, if needed, to the customer’s location by express delivery. For calls received by 5:00 p.m. customer’s time, in most cases, the replacement unit will arrive within two business days (excluding holidays). The replacement unit becomes the property of the customer in exchange for the failed unit, which becomes the property of Lenovo. Pack the failed unit into the shipping carton that contained the replacement unit and return to Lenovo.

Transportation charges, both ways, are paid by Lenovo.

Failure to use the carton in which the replacement unit was received could result in charges incurred by the customer for damage to the failed unit during shipment.

**International Warranty Service (IWS)**

IWS is available during the warranty period to customers who travel or relocate to countries where their computer is sold and serviced by a Service Provider authorized to perform warranty service. Eligible Lenovo computers are identified by their four-digit machine type.

You can obtain IWS through the method of service, such as CRU, depot, carry-in or on-site, provided in the servicing country. Service methods and procedures vary by country, and some service or parts may not be available in all countries. Service
centers in certain countries may not be able to service all models of a particular machine type. In addition, some countries may have fees and restrictions that apply at the time of service.

**Note:** Due to the earth's magnetic field, CRT monitors are manufactured to work in northern, southern, and equatorial regions of the earth and may not produce a satisfactory image when moved between them. Any required adjustment (if possible) is not covered under IWS and may be subject to a chargeable action. The magnetic field does not affect flat-panel LCD monitors and ThinkPad LCD displays.

**Licensing**

Programs included with this product are licensed under the terms and conditions of the license agreements that are shipped with the system.

**Terms and conditions for TopSeller**

The announced models are only available as part of the Lenovo TopSeller® programme. For full details of the terms and conditions please refer to the TopSeller Programme Terms and Conditions.

**Note:** Copies of the TopSeller Programme Terms and Conditions are available locally or from the PCD Channel Programme Manager.

In summary:

- Orders for TopSeller products must be placed on an order specifically identified as 'TopSeller' and should not contain any other (non-TopSeller) product.
- Orders may only be placed for currently eligible TopSeller products. (Not all products will be eligible for TopSeller at the same time.)
- Orders must be placed for immediate delivery.
- Lenovo will undertake to deliver product purchased under the terms of the TopSeller programme within a specified number of days. For full details of the delivery terms for your country please refer to the TopSeller Programme Terms and Conditions.
- Products purchased under this programme are eligible for 15 days price protection from the date of shipment. For full details please refer to the programme Terms and Conditions.
- There is no accommodation for the return to Lenovo of any product ordered under the terms of this programme.
- Products purchased under the terms of this offering are not available to be sold as part of a Special Bid.

**Lenovo or ThinkVision TFT monitor warranty upgrade**

The announced Lenovo or ThinkVision TFT monitors are also eligible for Warranty and Post Warranty upgrade offerings. The Lenovo Warranty and Post warranty upgrades provides a higher level of service than that provided by the Lenovo base Warranty.

**Note:** Only one Warranty Upgrade per Machine Serial Number can be active. A Post Warranty offering can be added when a Warranty Upgrade is active. The Post Warranty offering will only become active at the end date of the Warranty upgrade or Base Warranty period if later.

**LENOVO BUSINESS PARTNERS AND DISTRIBUTOR CHANNELS**

These TFT monitor warranty and post warranty upgrade offerings are specific to the Machine Types and products listed.

<table>
<thead>
<tr>
<th>TFT Monitor Upgrade Offering</th>
<th>L No.</th>
<th>TYPE</th>
<th>P/N</th>
</tr>
</thead>
</table>
| For 2578 with 3 year CCR base warranty:-
3 Yr On-site Exchange | L02 | TFT Monitor | 41C9439 |
1 Yr On-Site Exchange     L162     TFT Monitor     41C9552
Post Warranty

ANNOUNCEMENT COUNTRIES FOR THE INCLUDED L NO. PACS.

Announcement is restricted to the following countries:

For TFT Monitor Post Warranty upgrade L162 P/N 41C9552

<table>
<thead>
<tr>
<th>Austria</th>
<th>Belgium</th>
<th>Denmark</th>
<th>Finland</th>
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<tbody>
<tr>
<td>France*</td>
<td>Germany</td>
<td>Greece</td>
<td>Ireland</td>
</tr>
<tr>
<td>Israel</td>
<td>Italy</td>
<td>Luxembourg</td>
<td>Netherlands</td>
</tr>
<tr>
<td>Norway</td>
<td>Portugal</td>
<td>South Africa</td>
<td>Spain</td>
</tr>
<tr>
<td>Sweden</td>
<td>Switzerland</td>
<td>Turkey</td>
<td>UK**</td>
</tr>
</tbody>
</table>

Notes
* Excludes DOM/TOM and all other overseas territories and dependencies.
** Mainland UK only for On Site Services.

For TFT Monitor Warranty Upgrade L02 P/N 41C9439.

South Africa only.

One,
Two,
Three,
Four

Field-installable features
No

Model conversions
No

Machine installation
Customer setup. Customers are responsible for installation according to the instructions Lenovo provides with the machine.

Graduated program license charges apply
No

Licensed internal code and licensed machine code
This product does not contain licensed internal code or licensed machine code.

Prices

For all local charges, contact your sales representative.

Announcement countries

All European, Middle Eastern, and African countries.
### Operating regions - Suitability by model

<table>
<thead>
<tr>
<th>Description</th>
<th>Machine type/model</th>
<th>Suitable operating regions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lenovo ThinkVision L2251x Wide</td>
<td>2578-HN6</td>
<td>EMEA</td>
</tr>
</tbody>
</table>

### Field Replaceable Unit (FRU) part number detail

<table>
<thead>
<tr>
<th>Description</th>
<th>Machine type/model</th>
<th>FRU part number</th>
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<tbody>
<tr>
<td>Lenovo ThinkVision L2251x Wide</td>
<td>2578-HN6</td>
<td>45J8746</td>
</tr>
<tr>
<td>Tilt Stand Assembly with Base</td>
<td>45J8749</td>
<td></td>
</tr>
<tr>
<td>Analog Signal Cable</td>
<td>45J8747</td>
<td></td>
</tr>
<tr>
<td>DisplayPort Signal Cable</td>
<td>45J8748</td>
<td></td>
</tr>
<tr>
<td>USB Signal Cable</td>
<td>57Y2308</td>
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</tr>
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</table>

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