

Pavilion IPS LED Backlit Monitors

User Guide

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About This Guide

This guide provides information on monitor features, setting up the monitor, using the software and technical specifications.

WARNING! Text set off in this manner indicates that failure to follow directions could result in bodily harm or loss of life.

<u>CAUTION</u>: Text set off in this manner indicates that failure to follow directions could result in damage to equipment or loss of information.

NOTE: Text set off in this manner provides important supplemental information.

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1 Product Features

HP Pavilion IPS Monitors

The LCD (liquid crystal display) monitors have an active matrix, In-Plane Switching (IPS) panel. The monitor models and features include:

- 20xi/20bw/20fi models, 50.8 cm (20-inch) diagonal viewable area display with 1600 x 900 resolution, plus full-screen support for lower resolutions: includes custom scaling for maximum image size while preserving original aspect ratio
- 22xi/22bw/20fi models, 54.6 cm (21.5-inch) diagonal viewable area display with 1920 x 1080 resolution, plus full-screen support for lower resolutions; includes custom scaling for maximum image size while preserving original aspect ratio
- 23xi/23bw/23fi models, 58.4 cm (23-inch) diagonal viewable area display with 1920 x 1080 resolution, plus full-screen support for lower resolutions; includes custom scaling for maximum image size while preserving original aspect ratio
- 25xi/25bw model, 63.5 cm (25-inch) diagonal viewable area display with 1920 x 1080 resolution, plus full-screen support for lower resolutions; includes custom scaling for maximum image size while preserving original aspect ratio
- 27xi/27bw model, 68.6cm (27–inch) diagonal viewable area display with 1920 x 1080 resolution, plus full-screen support for lower resolutions; includes custom scaling for maximum image size while preserving original aspect ratio
- LED backlight that consumes less energy than traditional CCFL backlights
- Tilt capability and wide viewing angle to allow viewing from a sitting or standing position, or moving side-to-side
- Video signal input to support VGA analog
- Video signal input to support DVI digital
- Video signal input to support high-definition multimedia interface (HDMI)
- Plug and play capability if supported by your operating system
- Security slot provision on rear of monitor for optional cable lock
- On-Screen Display (OSD) adjustments in several languages for easy setup and screen optimization
- My Display for adjusting monitor settings
- High-bandwidth digital content protection (HDCP) on DVI and HDMI (for select models with HDMI) inputs
- Software and documentation CD that includes monitor drivers and product documentation

- Energy saver feature to meet requirements for reduced power consumption
- Safety guidelines, certifications, and regulatory notices for these products are available in the HP LCD Monitors Reference Guide on the CD included with this monitor.

2 Setting Up the Monitor

To set up the monitor, ensure that the power is turned off to the monitor, computer system, and other attached devices, then follow the instructions below.

Attaching the Monitor Base

- <u>CAUTION:</u> The screen is fragile. Avoid touching or applying pressure to the screen; doing so can cause damage.
- For monitor displays with glossy bezels, consider the placement of the display, because the bezel might cause interfering reflections from surrounding light and bright surfaces.
 - Lift the monitor from its box and place it face down on a flat surface.
 - Insert the stand into the slot on the back of the display head until it clicks.

Figure 2-1 Inserting the stand



3. Attach the base to the stand.

NOTE: For the 25" and 27" models, tighten the screw on the bottom of the base by hand. For all other models, attach the base to the stand and the plastic hook will automatically lock.

Figure 2-2 Attaching the base



Rear Components

Figure 2-3 Rear Components

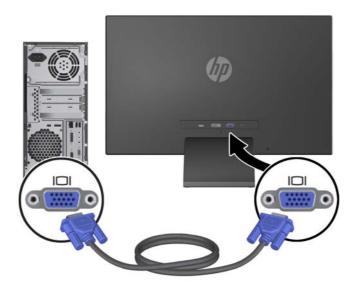


Component		Function	
1	HDMI*	Connects the HDMI cable from the computer to the monitor.	
2	DVI-D	Connects the DVI-D cable from the computer to the monitor.	
3	VGA	Connects the VGA cable from the computer to the monitor.	
4	DC Power LED	Illuminates when power adapter is connected to the monitor.	
5 DC Power Connector Connects the DC power adapter to the monitor.		Connects the DC power adapter to the monitor.	
* sele	* select models		

Connecting the Cables

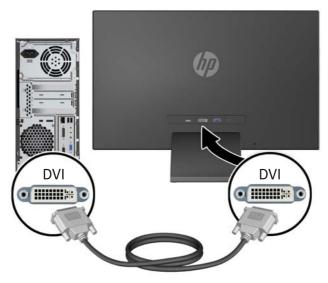
- 1. Place the monitor in a convenient, well-ventilated location near the computer.
- 2. Connect a signal cable.
 - NOTE: The monitor is capable of supporting analog, digital, or HDMI input. The video mode is determined by the video cable used. The monitor will automatically determine which inputs have valid video signals. The inputs can be selected by pressing the +/source button on the front panel or through the On-Screen Display (OSD) feature by pressing the Menu button.
 - For analog operation, use a VGA signal cable. Connect the VGA signal cable to the VGA
 connector on the rear of the monitor and the other end to the VGA connector on the
 computer.

Figure 2-4 Connecting a VGA Signal Cable (provided with select models)



 For DVI digital operation, use a DVI-D signal cable. Connect the DVI-D signal cable to the DVI connector on the rear of the monitor and the other end to the DVI connector on the computer.

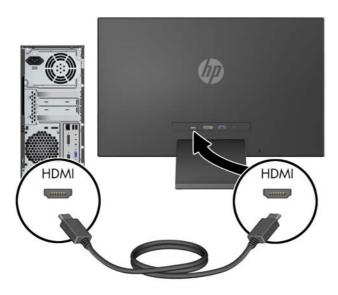
Figure 2-5 Connecting a DVI Signal Cable (provided with select models)



OR

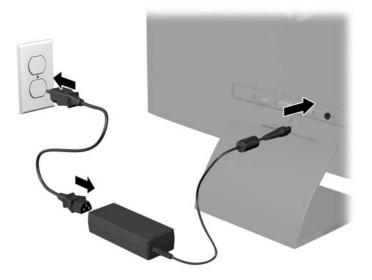
 Connect one end of the HDMI cable to the HDMI connector on the back of the monitor (select models) and the other end of the HDMI cable to the input device. The HDMI cable is not included. Connect the HDMI signal cable to the HDMI connector on the rear of the monitor and the other end to the HDMI connector on the computer.

Figure 2-6 Connecting the HDMI Cable (cable not included)



3. Connect the round end of the power supply cord to the monitor, and then connect one end of the power cord to the power supply and the other end to a grounded electrical outlet.

Figure 2-7 Connecting the Power Cable



WARNING! To reduce the risk of electric shock or damage to the equipment:

Do not disable the power cord grounding plug. The grounding plug is an important safety feature.

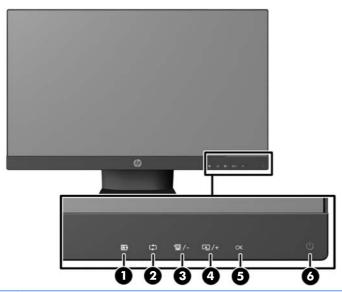
Plug the power cord into a grounded (earthed) electrical outlet that is easily accessible at all times.

Disconnect power from the equipment by unplugging the power cord from the electrical outlet.

For your safety, do not place anything on power cords or cables. Arrange them so that no one may accidentally step on or trip over them. Do not pull on a cord or cable. When unplugging from the electrical outlet, grasp the cord by the plug.

Front Panel Controls

Figure 2-8 Monitor Front Panel Controls



NOTE: The front panel controls on the HP 25xi/25bw and HP 27xi/27bw models are inactive unless they are illuminated. To activate the controls, tap on the area where the icons are located. All icons will become illuminated and active. The backlight for the icons will turn off upon exit from the OSD or when the OSD times out.

Table 2-1 Monitor Front Panel Controls

Control			Function	
1	₽	Menu	Opens, selects or exits the OSD menu.	
2	Ф	Auto adjustment	Press and hold to automatically adjust the screen image.	
			NOTE: This item can only be used with a VGA input signal.	
3	'⊞ /-	Quick View/Minus	If the OSD menu is on, press to navigate backward through the OSD menu and decrease adjustment levels.	
			If the OSD menu is inactive, press to activate the Quick View button that chooses different settings (HP Enhance+, Movie, Photo, Gaming, Text, Custom)	
4	욘/+	Plus/source	If the OSD menu is on, press to navigate forward through the OSD menu and increase adjustment levels.	
			If the OSD menu is inactive, press to activate the source button that chooses the video signal input (VGA, DVI, or HDMI)	
5	OK	OK	If the OSD menu is on, press to select the highlighted menu item.	
6	ψ	Power	Turns the monitor on or off.	

NOTE: To view an OSD menu simulator, visit the HP Customer Self Repair Services Media Library at http://www.hp.com/go/sml.

Adjusting the Monitor

Tilt the monitor panel forward or backward to set it to a comfortable eye level.

Figure 2-9 Tilting the Monitor



Turning on the Monitor

- 1. Press the power button on the front of the monitor to turn it on.
- Press the power button on the computer to turn it on.
- A CAUTION: Burn-in image damage may occur on monitors that display the same static image on screen for a prolonged period of time.* To avoid burn-in image damage on the monitor screen, you should always activate a screen saver application or turn off the monitor when it is not in use for a prolonged period of time. Image retention is a condition that may occur on all LCD screens. Monitors with a "burned-in image" are not covered under the HP warranty.
 - * A prolonged period of time is 12 consecutive hours of non-use.
- NOTE: If pressing the power button has no effect, the Power Button Lockout feature may be enabled. To disable this feature, press and hold the monitor power button for 10 seconds.
- NOTE: You can disable the power LED in the OSD menu. Press the Menu button on the front of the monitor, then select Management > Bezel Power LED > Off.

When the monitor is powered on, a Monitor Status message is displayed for five seconds. The message shows which input (VGA, DVI, or HDMI) is the current active signal, the status of the auto-switch source setting (On or Off; factory default is On), the default source signal (factory default is Auto-switch), the current preset display resolution, and the recommended preset display resolution.

The monitor automatically scans the signal inputs for an active input and uses that input for the display. If two or more inputs are active, the monitor will display the default input source. If the default source is not one of the active inputs, then the monitor will display the highest ranking priority input in the following order: DVI, HDMI, then VGA. You can change the default source in the OSD by pressing the front panel Menu button and selecting **Source Control** > **Default Source**.

HP Watermark and Image Retention Policy

The IPS monitor models are designed with IPS (In-Plane Switching) display technology which provides ultra-wide viewing angles and advanced image quality. IPS monitors are suitable for a wide variety of advanced image quality applications. This panel technology, however, is not suitable for applications that exhibit static, stationary or fixed images for long periods of time without the use of screen savers. These types of applications may include camera surveillance, video games, marketing logos, and templates that are displayed on the screen for a prolonged period of time. Static images may cause image retention damage that could look like stains or watermarks on the monitor's screen.

Monitors in use for 24 hours per day that result in image retention damage are not covered under the HP warranty. To avoid image retention damage, always turn off the monitor when it is not in use or use the power management setting, if supported on your system, to turn off the display when the system is idle.

Locating the Rating Label

The rating label on the monitor provides the product number and serial number. You may need these numbers when contacting HP about the monitor model. The rating label is located on the bottom of the monitor.

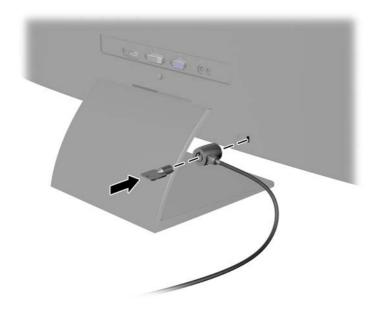
Figure 2-10 Locating the Rating Label



Installing a Cable Lock

You can secure the monitor to a fixed object with an optional cable lock available from HP.

Figure 2-11 Installing a Cable Lock



3 Using My Display Software

The CD provided with the monitor includes My Display software. Use My Display software to choose preferences for optimum viewing. You can select settings for gaming, movies, photo editing or just working on documents and spreadsheets. My Display also provides an easy way to adjust settings such as brightness, color, and contrast.

Installing the Software

To install the software:

- Insert the CD in your computer CD drive. The CD menu displays.
- Select the language.
- 3. Click Install My Display Software.
- 4. Follow the onscreen instructions.
- 5. Restart the computer.

Using the Software

To open the My Display software:

1. Click the **HP My Display** icon on the taskbar.

Or

Click the **Windows Start button** ™ on the taskbar.

- 2. Click All Programs.
- Click HP My Display.
- 4. Select HP My Display.

For additional information, refer to the onscreen **Help** within the software.

Finding More Information

Reference Guides

Refer to the HP LCD Monitors Reference Guide included on the CD with your monitor for additional information on:

- Optimizing monitor performance
- Safety and maintenance guidelines
- Installing software from the CD
- Using the OSD menu
- Downloading software from the Web
- Agency regulatory information
- Troubleshooting and recommended solutions to common problems

Product Support

For additional information on using and adjusting your monitor, go to http://www.hp.com/support. Select your country or region, select **Product Support & Troubleshooting**, and then enter your monitor model in the SEARCH window.

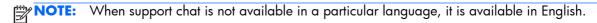


NOTE: The monitor user guide, reference guide, and drivers are available at http://www.hp.com/

If the information provided in the quide or in the HP LCD Monitors Reference Guide do not address your questions, you can contact support. For U.S. support, go to http://www.hp.com/go/contactHP. For worldwide support, go to http://welcome.hp.com/country/us/en/wwcontact_us.html.

Here you can:

Chat online with an HP technician



- E-mail support
- Find support telephone numbers
- Locate an HP service center

A Technical Specifications

NOTE: All specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.

20xi/20bw/20fi Models

Table A-1 20xi/20bw/20fi Models Specifications

Display	50.8 cm wide screen	20 inches wide screen
Туре	IPS	
Viewable Image Size	50.8 cm diagonal	20-inch diagonal
Tilt	-5 to 25°	
Maximum Weight (Unpacked)	2.8 kg	6.2 lbs
Dimensions (include base)		
Height	36.6 cm	14.5 inches
Depth	17.1 cm	6.73 inches
Width	46.6 cm	18.4 inches
Maximum Graphic Resolution	1600 x 900 (60 Hz) analog inpu	t
	1600 x 900 (60 Hz) digital input	
Optimum Graphic Resolution	1600 x 900 (60 Hz) analog inpu	t
	1600 x 900 (60 Hz) digital input	
Text Mode	720 × 400	
Dot Pitch	0.277 (H) × 0.277 (V) mm	
Pixels Per Inch	92 PPI	
Horizontal Frequency	24 to 83 kHz	
Vertical Refresh Rate	50 to 76 Hz	
Environmental Requirements Temperature		
Operating Temperature	5 to 35° C	41 to 95° F
Storage Temperature	-20 to 60° C	-4 to 140° F
Relative Humidity	20 to 70%	
Power Source	100 – 240 VAC 50/60 Hz	

Table A-1 20xi/20bw/20fi Models Specifications (continued)

Altitude:		
Operating	0 to 5000 m	0 to 16,400 feet
Storage	0 to 12192 m	0 to 40,000 feet
Measured Power Consumption:		
Full Power	22 watts	
Typical Settings 20 watts		
Energy Star® Test Methods	16.7 watts (115 VAC), 16.6 (230 VAC), 16.8 (100 VAC) watts	
Sleep	<0.5 watts	
Switch Off	<0.5 watts	
Input Terminal	One VGA connector; one DVI connector	

22xi/22bw/22fi Models

Table A-2 22xi/22bw/22fi Models Specifications

Display	54.6 cm wide screen	21.5 inches wide screen	
Туре	IPS		
Viewable Image Size	54.6 cm diagonal	21.5-inch diagonal	
Tilt	-5 to 25°		
Maximum Weight (Unpacked)	3.0 kg	6.61 lbs	
Dimensions (include base)			
Height	38.5 cm	15.2 inches	
Depth	17.1 cm	6.73 inches	
Width	49.9 cm	19.7 inches	
Maximum Graphic Resolution	1920 x 1080 (60 Hz) analog input		
	1920 x 1080 (60 Hz) digital input		
Optimum Graphic Resolution	1920 x 1080 (60 Hz) analog input		
	1600 x 900 (60 Hz) digital input		
Text Mode 720 × 400			
Dot Pitch	0.2480 (H) × 0.2480 (V) mm		
Pixels Per Inch	102 PPI		
Horizontal Frequency	24 to 94 kHz		
Vertical Refresh Rate	50 to 76 Hz		

Table A-2 22xi/22bw/22fi Models Specifications (continued)

Environmental Requirements Temperature 5 to 35° C 41 to 95° F Storage Temperature -20 to 60° C -4 to 140° F Relative Humidity 20 to 70% Power Source 100 – 240 VAC 50/60 Hz Altitude: ————————————————————————————————————		•			
Storage Temperature -20 to 60° C -4 to 140° F Relative Humidity 20 to 70% Power Source 100 – 240 VAC 50/60 Hz Altitude: Operating O to 5000 m O to 16,400 feet Storage 0 to 12192 m O to 40,000 feet Measured Power Consumption: Full Power 28 watts Typical Settings 26 watts Energy Star® Test Methods Sleep -0.5 watts Switch Off Input Terminal One VGA connector; one DVI connector;	Environmental Requirements Temperature				
Storage Temperature -20 to 60° C -4 to 140° F Relative Humidity 20 to 70% Power Source 100 – 240 VAC 50/60 Hz Altitude: To 100 – 240 VAC 50/60 Hz Operating 0 to 5000 m 0 to 16,400 feet Storage 0 to 12192 m 0 to 40,000 feet Measured Power Consumption: 28 watts Full Power 28 watts Typical Settings 26 watts Energy Star® Test Methods 19.2 (115 VAC), 19.2 (230 VAC), 19.4 (100 VAC) watts Sleep <0.5 watts	Operating Temperature	5 to 35° C	41 to 95° F		
Power Source 100 – 240 VAC 50/60 Hz Altitude: Operating 0 to 5000 m 0 to 16,400 feet Storage 0 to 12192 m 0 to 40,000 feet Measured Power Consumption: 28 watts Full Power 28 watts Typical Settings 26 watts Energy Star® Test Methods 19.2 (115 VAC), 19.2 (230 VAC), 19.4 (100 VAC) watts Sleep <0.5 watts		-20 to 60° C	-4 to 140° F		
Altitude: Operating Operating Oto 5000 m Oto 16,400 feet Oto 12192 m Oto 40,000 feet Measured Power Consumption: Full Power 28 watts Typical Settings Energy Star® Test Methods 19.2 (115 VAC), 19.2 (230 VAC), 19.4 (100 VAC) watts Sleep Switch Off One VGA connector; one DVI connector;	Relative Humidity	20 to 70%			
Operating Storage 0 to 5000 m 0 to 16,400 feet 0 to 12192 m 0 to 40,000 feet Measured Power Consumption: Full Power 28 watts Typical Settings 26 watts Energy Star® Test Methods 19.2 (115 VAC), 19.2 (230 VAC), 19.4 (100 VAC) watts Sleep Switch Off One VGA connector; one DVI connector;	Power Source	100 – 240 VAC 50/60 Hz			
Storage 0 to 12192 m 0 to 40,000 feet Measured Power Consumption: Full Power 28 watts Typical Settings 26 watts Energy Star® Test Methods 19.2 (115 VAC), 19.2 (230 VAC), 19.4 (100 VAC) watts Sleep < 0.5 watts Switch Off 0 One VGA connector; one DVI connector;	Altitude:				
Measured Power Consumption: Full Power 28 watts Typical Settings 26 watts Energy Star® Test Methods 19.2 (115 VAC), 19.2 (230 VAC), 19.4 (100 VAC) watts Sleep < 0.5 watts Switch Off < 0.5 watts Input Terminal One VGA connector; one DVI connector;	Operating	0 to 5000 m	0 to 16,400 feet		
Full Power Typical Settings Energy Star® Test Methods Sleep Switch Off 128 watts 26 watts 19.2 (115 VAC), 19.2 (230 VAC), 19.4 (100 VAC) watts <0.5 watts <0.5 watts Cone VGA connector; one DVI connector;	Storage	0 to 12192 m	0 to 40,000 feet		
Typical Settings 26 watts Energy Star® Test Methods 19.2 (115 VAC), 19.2 (230 VAC), 19.4 (100 VAC) watts Sleep watts watts watts watts one VGA connector; one DVI connector; 	Measured Power Consumption:				
Energy Star® Test Methods 19.2 (115 VAC), 19.2 (230 VAC), 19.4 (100 VAC) watts Sleep Switch Off Co.5 watts Cone VGA connector; one DVI connector;	Full Power	28 watts			
Sleep <0.5 watts Switch Off <0.5 watts One VGA connector; one DVI connector;	Typical Settings	26 watts			
Switch Off Switch Off Swatts Input Terminal One VGA connector; one DVI connector;	Energy Star® Test Methods 19.2 (115 VAC), 19.2 (230 VAC), 19.4 (100 VAC) watts		(100 VAC) watts		
Input Terminal One VGA connector; one DVI connector;					
	Switch Off				
one ribini connector	Input Terminal				

23xi/23bw/23fi Models

Table A-3 23xi/23bw/23fi Model Specifications

Display	58.4 cm wide screen	23 inches wide screen
Туре	IPS	
Viewable Image Size	58.4 cm diagonal	23–inch diagonal
Til t	-5 to 25°	
Maximum Weight (Unpacked)	3.5 kg	7.72 lbs
Dimensions (include base)		
Height	40.4 cm	15.95 inches
Depth	17.1 cm	6.73 inches
Width	53.23 cm	20.96 inches
Maximum Graphic Resolution	1920 x 1080 (60 Hz) analog in	put
	1920 x 1080 (60 Hz) digital inp	out
Optimum Graphic Resolution	1920 x 1080 (60 Hz) analog in	put
	1920 x 1080 (60 Hz) digital inp	out

Table A-3 23xi/23bw/23fi Model Specifications (continued)

Text Mode	720 x 400		
Dot Pitch	0.265 (H) x 0.265 (V) mm		
Pixels Per Inch 96 PPI			
Horizontal Frequency	24 to 94 kHz		
Vertical Refresh Rate 50 to 76 Hz			
Environmental Requirements Temperature			
Operating Temperature	5 to 35° C	41 to 95° F	
Storage Temperature	-20 to 60° C	-4 to 140° F	
Relative Humidity	20 to 70%		
Power Source	100 – 240 VAC 50/60 Hz		
Altitude:			
Operating	0 to 5000 m	0 to 16,400 feet	
Storage	0 to 12192 m	0 to 40,000 feet	
Measured Power Consumption:			
Full Power	30 watts		
Typical Settings	28 watts		
Energy Star® Test Methods	21.0 (115 VAC), 20.8 (230 V	21.0 (115 VAC), 20.8 (230 VAC), 21.1 (100 VAC) watts	
Sleep	<0.5 watts		
Switch Off	<0.5 watts		
Input Terminal One VGA connector; one DVI connector; one HDMI connector		connector;	

25xi/25bw Models

Table A-4 25xi/25bw Models Specifications

63.5 cm wide screen	25 inches wide screen
IPS	
63.5 cm diagonal	25-inch diagonal
-5 to 25°	
4.41 kg	9.71 lbs
	IPS 63.5 cm diagonal -5 to 25°

Table A-4 25xi/25bw Models Specifications (continued)

Dimensions (include base)		
Height	42.94 cm	16.91 inches
Depth	19.23 cm	7.57 inches
Width	57.77 cm	22.74 inches
Maximum Graphic Resolution	1920 x 1080 (60 Hz) analog	g input
	1920 x 1080 (60 Hz) digital	input
Optimum Graphic Resolution	1920 x 1080 (60 Hz) analog	g input
	1920 x 1080 (60 Hz) digital	input
Text Mode	720 × 400	
Dot Pitch	0.288 (H) x 0.288 (V) mm	
Pixels Per Inch	88 PPI	
Horizontal Frequency	24 to 94 kHz	
Vertical Refresh Rate	50 to 76 Hz	
Environmental Requirements Temperature		
Operating Temperature	5 to 35° C	41 to 95° F
Storage Temperature	-20 to 60° C	-4 to 140° F
Relative Humidity	20 to 70%	
Power Source	100 – 240 VAC 50/60 Hz	
Altitude:		
Operating	0 to 5000 m	0 to 16,400 feet
Storage	0 to 12192 m	0 to 40,000 feet
Measured Power Consumption:		
Full Power	30 watts	
Typical Settings	28 watts	
Energy Star® Test Methods	26.1 (115 VAC), 26 (230 VAC), 26.1 (100 VAC) watts	
Sleep	<0.5 watts	
Switch Off	<0.5 watts	
Input Terminal	One VGA connector; one DV one HDMI connector	l connector;

27xi/27bw Models

Table A-5 27xi/27bw Models Specifications

<u> </u>		
Display	68.6 cm wide screen	27 inches wide screen
Туре	IPS	
Viewable Image Size	68.6 cm diagonal	27-inch diagonal
Tilt	-5 to 25°	
Maximum Weight (Unpacked)	5.3 kg	11.68 lbs
Dimensions (include base)		
Height	45.46 cm	17.9 inches
Depth	19.24 cm	7.58 inches
Width	62.26 cm	24.51 inches
Maximum Graphic Resolution	1920 x 1080 (60 Hz) analog input	
	1920 x 1080 (60 Hz) digital input	
Optimum Graphic Resolution	1920 x 1080 (60 Hz) analog input	
	1920 x 1080 (60 Hz) digital input	
Text Mode	720 × 400	
Dot Pitch	0.311 (H) x 0.311 (V) mm	
Pixels Per Inch	82 PPI	
Horizontal Frequency	24 to 94 kHz	
Vertical Refresh Rate	50 to 76 Hz	
Environmental Requirements Temperature		
Operating Temperature	5 to 35° C	41 to 95° F
Storage Temperature	-20 to 60° C	-4 to 140° F
Relative Humidity	20 to 70%	
Power Source	100 – 240 VAC 50/60 Hz	
Altitude:		
Operating	0 to 5000 m	0 to 16,400 feet
	0 to 12192 m	0 to 40,000 feet

Table A-5 27xi/27bw Models Specifications (continued)

Measured Power Consumption:	
Full Power	35 watts
Typical Settings	32 watts
Energy Star® Test Methods	24.4 (115 VAC), 24.2 (230 VAC), 24.5 (100 VAC) watts
Sleep	<0.5 watts
Switch Off	<0.5 watts
Input Terminal	One VGA connector; one DVI connector; one HDMI connector

Recognizing Preset Display Resolutions

The display resolutions listed below are the most commonly used modes and are set as factory defaults. This monitor automatically recognizes these preset modes and they will appear properly sized and centered on the screen.

20" Models

Table A-6 Factory Preset Modes

Preset	Pixel Format	Horz Freq (kHz)	Vert Freq (Hz)
1	640 × 480	31.469	59.94
2	720 × 400	31.469	70.087
3	800 × 600	37.879	60.317
4	1024 × 768	48.363	60.004
5	1280 × 720	45	60
6	1280 x 1024	63.981	60.02
7	1440 x 900	55.935	59.887
8	1600 x 900	60	60

22", 23", 25", 27" Models

Table A-7 Factory Preset Modes

Preset	Pixel Format	Horz Freq (kHz)	Vert Freq (Hz)
1	640 x 480	31.469	59.94
2	720 x 400	31.469	70.087
3	800 × 600	37.879	60.317
4	1024 × 768	48.363	60.004

Table A-7 Factory Preset Modes (continued)

5	1280 × 720	45	60
6	1280 × 1024	63.981	60.02
7	1440 × 900	55.935	59.887
8	1600 × 900	60	60
9	1680 × 1050	65.29	59.954
10	1920 × 1080	67.5	60

Table A-8 High Definition Video Formats

Preset	Timing Name	Pixel Format	Horz Freq (kHz)	Vert Freq (Hz)
1	480p	720 × 480	31.469	60
2	576р	720 × 576	31.25	50
3	720p50	1280 × 720	37.5	50
4	720p60	1280 × 720	45	60
5	1920p60	1920 x 1080	67.5	60
6	1920p50	1920 x 1080	56.25	50

Power Adapters

Table A-9 Power Adapters/Models

Manufacturer	Model Number	Power Supply Rating	Monitor Models
LiteOn	PA-1041–71TA-LF	40W/12V	20xi/20bw/20fi, 22xi/ 22bw/22fi, and 23xi/ 23bw/23fi
APD	DA-50F19-AAAF	50W/19V	HP 25xi/bw and HP 27xi/ bw

Entering User Modes

The video controller signal may occasionally call for a mode that is not preset if:

- You are not using a standard graphics adapter.
- You are not using a preset mode.

It this occurs, you may need to readjust the parameters of the monitor screen by using the on-screen display. Your changes can be made to any or all of these modes and saved in memory. The monitor automatically stores the new setting, then recognizes the new mode just as it does a preset mode. In addition to the factory preset modes, there are at least 10 user modes that can be entered and stored.

Energy Saver Feature

The monitors support a reduced power state. The reduced power state will be entered into if the monitor detects the absence of either the horizontal sync signal and/or the vertical sync signal. Upon detecting the absence of these signals, the monitor screen is blanked, the backlight is turned off, and the power light is turned amber. When the monitor is in the reduced power state, the monitor will utilize 0.5 watts of power. There is a brief warm up period before the monitor will return to its normal operating mode.

Refer to the computer manual for instructions on setting energy saver features (sometimes called power management features).

NOTE: The above power saver feature only works when connected to computers that have energy saver features.

By selecting the settings in the monitor's Energy Saver utility, you can also program the monitor to enter into the reduced power state at a predetermined time. When the monitor's Energy Saver utility causes the monitor to enter the reduced power state, the power light blinks amber.