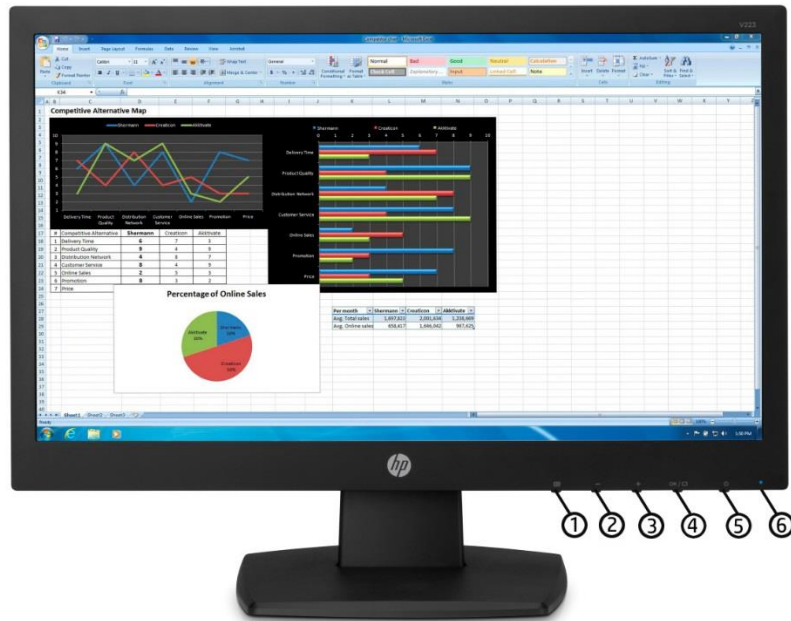


### Overview

## HP V223 21.5-inch Monitor



1. **Menu:** Opens, selects or exits the OSD menu.
2. **Minus "-":** If the OSD menu is on, press to navigate backward through the OSD menu and decrease adjustment levels.
3. **Plus "+":** Select input source. If the OSD menu is on, press to navigate forward through the OSD menu and increase adjustment levels.
4. **OK:** If the OSD menu is on, press to select the highlighted menu item. If the OSD menu is inactive, press to activate the auto adjustment feature to optimize the screen image.
5. **Power:** Turns the monitor on or off.
6. **Power LED:** fully powered = green; sleep mode = amber; sleep timer mode = flashing amber.



Use two HP V223 21.5-inch monitors with an HP Adjustable Dual Display Stand (AW664AA) for a small footprint, high productivity work solution.

(Multi-monitor support depends on your PC capability.  
Monitors, stands, keyboard, mouse and notebook are sold separately.)

### Overview

## Overview

Easily multi-task across your documents and e-mail with the HP V223 21.5-inch Monitor, a budget-friendly display that's just right for everyday business.

### Key features:

- Enjoy crisp, clear views with Full HD 1920 x 1080 resolution and 5 ms response time<sup>1</sup> on an ample 21.5-inch diagonal screen.
- Mount your HP Desktop Mini 260<sup>2</sup> directly behind the display for an integrated, affordable workspace that's perfect for small spaces. Or, use the integrated VESA mount to place the display on a wall or stand.<sup>2</sup>
- Get legacy compatibility with a VGA connector, or use DVI to connect to your newer technology.
- Reduce power consumption and help lower your costs with an intelligent, energy-efficient design that is ENERGY STAR<sup>®</sup> certified and EPEAT<sup>®</sup> Silver registered.<sup>3</sup> The display also includes mercury-free display backlights and arsenic-free display glass.
- Customize your display's position with adjustable tilt settings and viewing angles.
- Rest assured that your IT investment is supported by a three-year standard limited warranty. To extend your protection, select optional HP Care Packs.<sup>4</sup>

1. All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.
2. Compatible with HP Desktop Mini 260 G1 and G2, sold separately. HP Quick Release required and sold separately. Mounting hardware sold separately. Options sold separately.
3. EPEAT<sup>®</sup> registered where applicable. EPEAT registration varies by country. See [www.epeat.net](http://www.epeat.net) for registration status in your country.
4. Sold separately. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. For details, visit [www.hp.com/go/cpc](http://www.hp.com/go/cpc). HP Services are governed by the applicable HP terms and conditions of service provided or indicated to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and such rights are not in any way affected by the HP terms and conditions of service or the HP Limited Warranty provided with your HP Product.

### Technical Specifications

#### Part numbers

V5G70AA/ V5G70A6/ V5G70A8/ V5G70A3

<b>Panel</b>	<b>Type</b>	TN with LED backlight
	<b>Viewable Image Area</b>	<b>54,6 cm</b> (21.5-inch) widescreen; diagonally measured
	<b>Active Area</b> (W x H)	<b>47,66 x 26,81 cm</b> (18.76 x 10.55 in)
	<b>Aspect Ratio</b>	16:9
	<b>Viewing Angle</b> (typical)	Up to 90° horizontal/65° vertical typical
	<b>Brightness</b> (typical)*	200 cd/m <sup>2</sup>
	<b>Contrast Ratio</b> (typical)*	600:1
	<b>Dynamic Contrast Ratio</b> (typical)*	5,000,000:1
	<b>Response Times*</b>	5 ms typical (on/off)
	<b>Pixel Pitch</b>	0.248 x 0.248 mm
	<b>Pixels Per Inch (PPI)</b>	102.3
	<b>Backlight Lamp Life*</b> (to half brightness)	30,000 hours minimum
	<b>Color Gamut*</b>	Up to 16.7 million colors with the use of FRC technology
<b>Color Support**</b>	72% NTSC	

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

\*\* With the use of FRC technology.

<b>User Controls</b>	<b>Buttons or Switches</b>	Menu, Minus ("-"), Plus ("+"), OK, Power
	<b>User Programmable Modes</b>	20
	<b>Languages</b>	10 (English, Spanish, German, French, Italian, Netherlands, Portuguese, Japanese, T-Chinese and S-Chinese)
	<b>On Screen Display (OSD) User Controls</b>	Brightness, Contrast, Color, Image Control, OSD control, Management, Language, Information, Factory Reset
	<b>Audio Controls</b>	N/A
<b>Signal Interface/ Performance</b>	<b>Horizontal Frequency</b>	30 - 80 kHz
	<b>Vertical Frequency</b>	50 - 60 Hz
	<b>Native Resolution</b>	1920 x 1080 @ 60Hz

### Technical Specifications

<b>Preset Graphic Modes</b> (non-interlaced)	640 x 480 @ 60Hz
	800 x 600 @ 60 Hz
	1024 x 768 @ 60 Hz
	1280 x 720 @ 60 Hz
	1280 x 800 @ 60 Hz
	1280 x 1024 @ 60 Hz
	1440 x 900 @ 60 Hz
	1600 x 900 @ 60 Hz
	1680 x 1050 @ 60 Hz
	1920 x 1080 @ 60 Hz

### Environmental Data

### Eco-Label Certifications & declarations

This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks:

- IT ECO declaration
- US ENERGY STAR®
- EPEAT® Gold registered in the United States. See <http://www.epeat.net> for registration status in your country

### Energy Consumption (in accordance with US ENERGY STAR® test method)

	<b>115VAC, 60Hz</b>	<b>230VAC, 50Hz</b>	<b>100VAC, 60Hz</b>
Normal Operation	18.08 W	18.41 W	18.01 W
Sleep	0.23 W	0.27 W	0.23 W
Off	0.23 W	0.26 W	0.23 W

### Heat Dissipation\*

	<b>115VAC, 60Hz</b>	<b>230VAC, 50Hz</b>	<b>100VAC, 60Hz</b>
Normal Operation	62 BTU/hr	63 BTU/hr	62 BTU/hr
Sleep	1 BTU/hr	1 BTU/hr	1 BTU/hr
Off	1 BTU/hr	1 BTU/hr	1 BTU/hr

\*NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

### Technical Specifications

#### Additional Information

- This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2002/95/EC.
- This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC.
- This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).
- This product is in compliance with the IEEE 1680 (EPEAT) standard at the <Gold> level, see [www.epeat.net](http://www.epeat.net)
- Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.
- This product contains 16.5% post-consumer recycled plastic (by wt.)
- This product is 99.1 % recycle-able when properly disposed of at end of life.

#### Packaging Materials

<b>External:</b>	PAPER/Paper	479 g
<b>Internal:</b>	PLASTIC/EPS (Expanded Polystyrene)	285 g
	PLASTIC/EPE-Expanded Polyethylene	30 g
	PLASTIC/Other plastics unknown	3 g

#### RoHS Compliance

Hewlett-Packard is committed to compliance with all applicable environmental laws and regulations, including the European Union Restriction of Hazardous Substances (RoHS) Directive. HP's goal is to exceed compliance obligations by meeting the requirements of the RoHS Directive on a worldwide basis. By July 1, 2006, RoHS substances will be virtually eliminated (virtually = to levels below legal limits) for all HP electronic products subject to the RoHS Directive, except where it is widely recognized that there is no technically feasible alternative (as indicated by an exemption under the EU RoHS Directive).

### Technical Specifications

#### Material Usage

This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at <http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/gse.pdf>) :

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants – may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
- Radioactive Substances
- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

#### Packaging

HP follows these guidelines to decrease the environmental impact of product packaging:

- Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.
- Eliminate the use of ozone-depleting substances (ODS) in packaging materials.
- Design packaging materials for ease of disassembly.
- Maximize the use of post-consumer recycled content materials in packaging materials.
- Use readily recyclable packaging materials such as paper and corrugated materials.
- Reduce size and weight of packages to improve transportation fuel efficiency.
- Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.

### Technical Specifications

#### End-of-life Management and Recycling

Hewlett-Packard offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: <http://www.hp.com/go/reuse-recycle> or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: <http://www.hp.com/go/recyclers>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

#### Hewlett-Packard Corporate Environmental Information

For more information about HP's commitment to the environment:

Global Citizenship Report  
<http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html>

Eco-label certifications  
<http://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html>

ISO 14001 certificates:  
<http://www.hp.com/hpinfo/globalcitizenship/environment/operations/environmentmanagement.html>

<b>Video/Other Inputs</b>	<b>Maximum Pixel Clock Speed</b>	170 MHz
	<b>Anti-Glare</b>	Yes
	<b>Plug and Play</b>	Yes
	<b>Input/Output Connectors</b>	(1) VGA (1) DVI-D (HDCP support)
	<b>USB</b>	N/A
	<b>Video Cables Included</b>	(1) VGA cable <b>1,5 m</b> (4.9 ft)
<b>Multimedia</b>	<b>Audio</b>	N/A
	<b>Speakers</b>	N/A
<b>Power</b>	<b>Power Supply</b>	Internal
	<b>Input Power</b>	100 - 240 VAC 50/60 Hz
	<b>Maximum Power</b>	25 W
	<b>Typical Power</b>	15 W
	<b>Sleep Power</b>	0.5 W

### Technical Specifications

	<b>Power Cable Length</b>	<b>1,5 m (4.9 ft)</b>	
<b>Mechanical</b>	<b>Dimensions (W × D × H)</b>	<b>Unpacked w/stand</b>	<b>50,92 x 20,7 x 38,98 cm</b> (20.04 x 8.15 x 15.35 in)
		<b>Unpacked w/o stand (head only)</b>	<b>50,92 x 4,54 x 31,80 cm</b> (20.05 x 1.79 x 12.52 in)
		<b>Packaged</b>	<b>56,7 x 12,6 x 39,6 cm</b> (22.32 x 4.96 x 15.59 in)
	<b>Weight</b>	<b>Head Only</b>	<b>3 kg (6.6 lbs)</b>
		<b>Unpacked</b>	<b>3,3 kg (7.28 lbs)</b>
		<b>Packaged</b>	<b>4,5 kg (9.92 lbs)</b>
<b>Ergonomic Features</b>	<b>Detachable Stand</b>	Yes, ships detached	
	<b>Height Adjustment</b>	N/A	
	<b>Tilt Range</b>	-5° to + 20° vertical	
	<b>Swivel</b>	N/A	
	<b>Pivot</b>	N/A	
<b>Environmental</b>	<b>Temperature - Operating</b>	<b>5° to 35° C (41° to 95° F)</b>	
	<b>Temperature - Non-operating</b>	<b>-20° to 60° C (-4° to 140° F)</b>	
	<b>Humidity - Operating</b>	20% to 80% non-condensing	
	<b>Humidity - Non-operating</b>	5% to 95%, 38.7° C max wet-bulb	
	<b>Altitude - Operating</b>	<b>0 to 5,000 m (0 to 16,400 ft)</b>	
	<b>Altitude - Non-operating</b>	<b>0 to 12,192 m (0 to 40,000 ft)</b>	
	<b>White LED Backlights</b>	Yes	
	<b>Arsenic-Free Display Glass</b>	Yes	
	<b>Low Halogen<sup>4</sup></b>	Yes	
	<b>Mercury-Free Display Backlights</b>	Yes, Mercury-free backlights	
<b>Options</b>	<b>HP Quick Release Bracket</b> — Part number EM870AA <sup>1</sup>	An easy-to-use, VESA-compliant, LCD monitor mounting solution that allows you to quickly and securely attach an LCD monitor to a variety of stands, brackets, arms or wall mounts. For more information, refer to this product's QuickSpecs document.	



### Technical Specifications

	<p><b>HP USB Graphics Adapter</b> — Part number NL571AA</p> <p><b>HP Adjustable Dual Display Stand</b> — Part Number AW664AA</p> <p><b>HP Business PC Security Lock Kit</b> — Part number PV606AA</p>	<p>Enables connection of up to six simultaneous displays to help you boost productivity and multi-task across several open applications. Use one Adapter to bridge between a notebook or desktop PC and second monitor or use multiple Adapters to connect several displays to each other.</p> <p>Premium space-saving dual screen solution provides access to more monitor real estate and makes it possible to manage multiple applications simultaneously. Weight adjustable for dual monitors from 17-24". Rotate displays into portrait/landscape positions.</p> <p>Attaches to the rear of the PC with a six-foot steel cable that can be used to secure a PC or peripherals such as mice, keyboards, monitors or USB security devices to protect them against unauthorized removal by physically connecting the system to an anchor point.</p>
<b>What's in the box?</b>	<p><b>Monitor and Accessories</b></p> <p><b>Documentation</b></p> <p><b>User Guide Languages</b></p>	<p>HP V223 21.5-inch diagonal monitor AC power cord <b>1,5 m</b> (4.9 ft) VGA cable <b>1,5 m</b> (4.9 ft) Printed documentation</p> <p>English, Arabic, S. Chinese, T. Chinese, Czech, Danish, Dutch, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Kazakh, Korean, Norwegian, Polish, Brazilian Portuguese, Russian, Slovenian, Spanish, Swedish and Turkish, Latin America, Bahasa Indonesian, Portuguese, Hebrew.</p>
<b>Other</b>	<p><b>Warranty Languages</b></p> <p><b>Color</b></p> <p><b>VESA Mounting</b></p> <p><b>Security Lock-Ready</b></p> <p><b>Country of Origin</b></p>	<p>English, Arabic, S. Chinese, T. Chinese, Czech, Danish, Dutch, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Kazakh, Korean, Norwegian, Polish, Brazilian Portuguese, Russian, Slovenian, Spanish, Swedish and Turkish, Latin America, Bahasa Indonesian, Portuguese, Hebrew.</p> <p>Black</p> <p>Yes, one set of standard 4-hole pattern, 100 mm.</p> <p>Yes, one security lock slot available</p> <p>China</p>
<b>Certification and Compliance</b>	<p>CEL Grade 1, ENERGY STAR® Qualified, EPEAT® Silver<sup>3</sup> registered, CE, CB, KC, KCC, NOM, PSB, ICES, TUV-S, CCC, CEL, CECP, SEPA, EPA, ISC, VCCI, FCC, ETL, TUV-GS, TUV, MEPS, BSMI, EAC, ISO 9241-307, Microsoft WHQL Certification (Windows 8.1 and Windows 7)</p>	
<b>Compatibility</b>	<p>Compatible with platforms using the VESA standard video modes. Recommended for use with HP products.</p>	
<b>Service and Warranty</b>	<p>Protected by HP, including a 3 year standard limited warranty.* Optional HP Care Pack Services are extended service contracts that extend your protection beyond the standard limited warranties.<sup>2</sup></p> <p>*Warranty term may vary by region.</p>	

### *Technical Specifications*

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1. The HP Quick Release has been designed to support a maximum of up to 24 lbs (10.9 kg) for all devices mounted. Because mounting surfaces vary widely and the final mounting method and configuration may vary, mounting fasteners are not supplied (other than the VESA-compliant screws). HP recommends that you consult with a qualified engineering, architectural or construction professional to determine the appropriate type and quantity of mounting fasteners required for your application and to ensure that your mounting solution is properly installed to support applied loads.
2. Service levels and response times for HP Care Pack Services may vary depending on your geographic location. Service starts from date of hardware purchase. Restrictions and limitations apply. See [www.hp.com/go/cpc](http://www.hp.com/go/cpc) for details.
3. EPEAT® Silver where HP registers commercial display products. See [www.epeat.net](http://www.epeat.net) for registration status in your country.
4. External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.

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*Change Log*

<b>Change Log</b>	
From v1 to v2, March 8 <sup>th</sup> 2016	
Added	Environmental specs