Overview
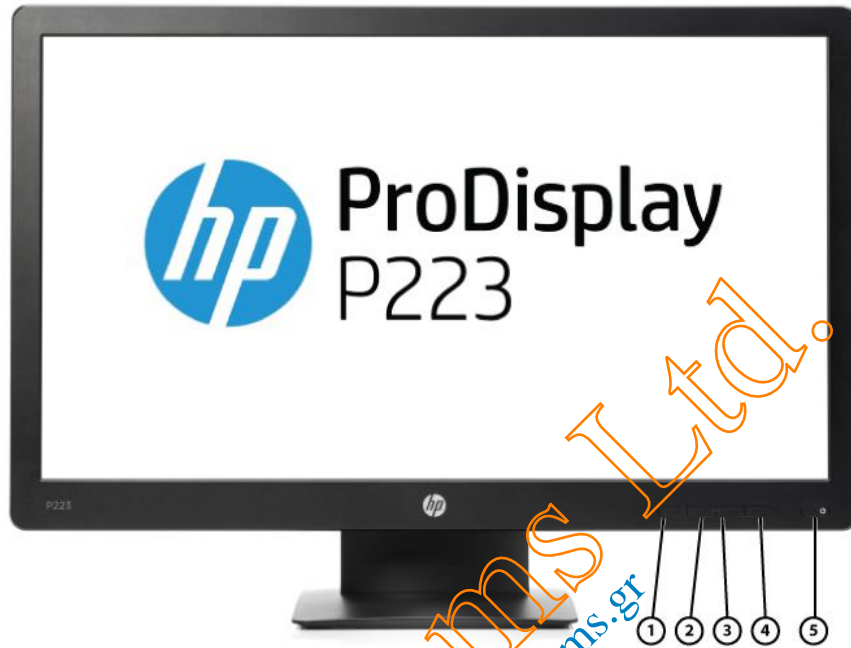
HP ProDisplay P223 21.5-inch Monitor

1.   Menu button
2.   Minus ("-")
3.   Plus ("+") /Input Control

4.   OK/Auto,
5.   Power button/LED

Your ideal office configuration begins with two HP ProDisplay P223 monitors combined with an HP Adjustable Dual Display Stand (AW664AA) for a small footprint, high productivity work solution.*

HP ProDisplay P223 and HP Adjustable Dual Display Stand dual monitor configuration shown. (Note: monitors and stands sold separately)

*NOTE: Multi-monitor support is dependent on your system. Check your user guide or technical specifications for compatibility. Optional accessories may be required.

Overview

Overview

Put your HP Pro PC content front and center on an ample 21.5-inch diagonal FHD screen with the HP ProDisplay P223 21.5-inch Monitor.

Key features:

- Share your content in crisp, clear color on the 21.5-inch diagonal screen with 1920 x 1080 resolution, and 3000:1 contrast ratio.[1]
- Experience stunning FHD picture quality, ultra-fast graphics refresh, and vivid colors with DisplayPort™.
- Attach your HP PC or select HP Thin Client directly behind the display.[2]
- Reduce power consumption and help lower your costs with an energy-efficient design.
- Get a stable product lifecycle and minimum one-year lifespan, plus Global Series availability around the world.
- Free up valuable desk space with mounting options[3] enabled by the 100-mm VESA pattern.
- Customize a total solution with options[3] designed for your display.
- Design the screen for how you work with HP Display Assistant software, which enables screen partitioning and helps deter theft by deactivating a display that's disconnected without approval.
- Rest assured that your IT investment is supported by a three-year standard limited warranty. Add HP Care services[4] to extend your protection beyond the standard limited warranties.

1   All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.
2   Requires HP Quick Release, sold separately. See product QuickSpecs for exact PC and thin client compatibility.
3   Each accessory sold separately. Mounting hardware sold separately. Head only model sold separately and availability varies by region.
4   HP Care Pack Services are sold separately. 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 for details. 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.

Change Log

Models:
X7R61AA - HP ProDisplay P223 21.5-inch Monitor
Z4L11AA - HP ProDisplay P223 21.5-inch Monitor Head Only

Panel		
	Type	21.5-inch VA w/LED backlight
	Viewable Image Area (diagonal)	**54,61 cm** (21.5-inch) widescreen; diagonally measured
	Panel Active Area (W × H)	**47,6 x 26,7 cm** (18.74 × 10.51 in)
	Resolution	1920 x 1080 @ 60 Hz
	Aspect Ratio	16:9
	Viewing Angle	Up to 178° horizontal/178° vertical typical
	Brightness	250 cd/m²
	Contrast Ratio (Typical)	3000:1 Static; 5,000,000:1 Dynamic (DCR)
	Response Time*	5 ms typical (gray to gray)
	Pixel Pitch	.248 mm
	Pixels Per Inch (PPI)	102.4 DPI
	Backlight Lamp Life (to half brightness)	30,000 hours minimum
	Color Support	Up to 16.7 million colors with the use of FRC technology
	Color Gamut (Typical)	72%

* Product default is 8ms response time and can be adjusted to as low as 5ms in the display menu. See user guide for more information. All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.

User Controls		
	Buttons or Switches	Menu, Minus ("-"), Plus ("+")/Input Control, OK/Auto, Power
	Languages	10 (English, Spanish, German, French, Italian, Netherlands, Portuguese, Japanese, T-Chinese and S-Chinese)
	On Screen Display (OSD) User Controls	Brightness, Contrast, Input Control, Color Control, Image Control, Power Control, OSD control, Management, Language, Information, Exit
	User Programmable Modes	Yes, 10
	Audio Controls	N/A
Signal Interface/ Performance	**Horizontal Frequency**	24-80 kHz
	Vertical Frequency	50-60 Hz
	Native Resolution	1920 x 1080 @ 60 Hz
	Preset Graphic Modes (non-interlaced)	640 x 480 @ 60Hz 720 x 400 @ 70Hz 800 x 600 @ 60Hz 1024 x 768 @ 60Hz 1280 x 720 @ 60Hz 1280 x 800 @ 60Hz

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		1280 x 1024 @ 60Hz	
		1440 x 900 @ 60Hz	
		1600 x 900 @ 60Hz	
		1680 x 1050 @ 60Hz	
		1920 x1080 @ 60Hz	
	Anti-Glare	Yes	
Video/Other Inputs	**Plug and Play**	Yes	
	Input Connectors	(1) DisplayPort™ 1.2, (1) VGA	
		HDCP support on DisplayPort™	
	USB	N/A	
	Video Cables Included	(1) DisplayPort™ **1,8 m** (5.9 ft) (1) VGA **1,8 m** (5.9 ft)	
	Audio	N/A	
Multimedia	**Speakers**	N/A	
Power	**Power Supply**	Internal	
	Input Power	100 - 240 VAC 50/60 Hz	
	Maximum Power	28 W	
	Typical Power	20 W	
	Sleep Power	0.5 W	
	Power Cable Length	**1,9 m** (6.2 ft)	
Mechanical	**Dimensions** (W × D × H)	**Unpacked w/stand** (highest setting)	**51,5 x 19,12 x 38,9 cm** (20.28 x 7.53 x 15.32 in)
		Unpacked w/o stand (head only)	**51,5 x 5,49 x 32,7 cm** (20.28 x 2.16 x 12.87 in)
		Packaged	**58,9 x 14 x 42 cm** (23.19 x 5.51 x 16.54 in)
	Weight	**Head Only**	**2,9 kg** (6.4 lb)
		Unpacked with stand	**3,5 kg** (7.7 lb)
		Packaged	**4,7 kg** (10.4 lb)
Ergonomic Features (not available on head only model)	**Detachable Stand**	Yes, ships detached	
	Height Adjustment	N/A	
	Tilt Range	–5° to + 22° vertical	
	Swivel	N/A	
	Pivot	N/A	
Environmental	**Temperature - Operating**	**5° to 35° C** (41° to 95° F)	
	Temperature - Non- operating	**–20° to 60° C** (-4° to 140° F)	
	Humidity - Operating	20% to 80% non-condensing	
	Humidity - Non- operating	5% to 95%, 38.7° C max wet-bulb	
	Altitude - Operating	**0 to 5,000 m** (0 to 16,404 ft)	

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Altitude – Non-operating	**0 to 12,192 m** (0 to 40,000 ft)
White LED Backlights	Yes
CCFL Panel	No
Arsenic-Free Display Glass	Yes
Low Halogen[1]	Yes (except cables)
Mercury-Free Display Backlighting	Yes

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®
- TCO or TCO Certified Edge
- 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)

	115VAC, 60Hz	230VAC, 50Hz	100VAC, 50Hz
Normal Operation	14.5 W	14.5 W	14.5 W
Sleep	0.3 W	0.3 W	0.3 W
Off	0.1 W	0.2 W	0.1 W

Heat Dissipation*

	115VAC, 60Hz	230VAC, 50Hz	100VAC, 50Hz
Normal Operation	50 BTU/hr	50 BTU/hr	50 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.

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
- Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.
- This product contains 18.8% post-consumer recycled plastic (by wt.)
- This product is 98.1% recycle-able when properly disposed of at end of life.

Packaging Materials

External:	PAPER/Corrugated	580 g
Internal:	PLASTIC/Polystyrene Expanded - EPS	202 g
	PLASTIC/Polyethylene Expanded - EPE	28 g

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RoHS Compliance	HP, Inc. 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).
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.

QuickSpecs

HP ProDisplay P223 21.5-inch Monitor
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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.
HP, Inc. 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://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c04755842 and http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf
Options (each sold separately)	**HP LCD Speaker Bar**—Part number NQ576AA — Powered directly by the connected PC, the Speaker Bar seamlessly attaches to the monitor's lower bezel to bring full audio support to select HP flat panel monitors. Features include dual speakers with full sound range and dual external headphone jacks. Sold separately. For more information, refer to the product's QuickSpecs. **HP Adjustable Dual Display Stand**—Part Number AW664AA — 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. **HP Single Monitor Arm—Part number BT861AA** — The flexible design of the HP Single Monitor Arm provides a seemingly endless range of display adjustments with an amazing 13 inches of lift, 75 degrees of tilt, and 360 degrees of pan and rotation – all at your fingertips -- helping you stay comfortable and productive throughout the day. **HP DisplayPort™ Cable Kit** —Part number VN567AA — Connects a DisplayPort™ connector on an HP Business Desktop computer to a DisplayPort™ connector on a monitor **HP LCD Monitor Quick Release** — Part number EM870AA[4] — 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. **HP Business PC Security Lock V2 Kit** — Part number N3R93AA — Help prevent chassis tampering and secure your PC and display in workspaces and public areas. Simply route the cable through the PC's lock slot and your display, anchor to a desk, table, or other fixed surface, and lock with your individual key. A master key configuration is also available upon request.

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What's in the box?	**Monitor and Accessories**	HP ProDisplay P223 21.5-inch Monitor, AC power cord (1.9 m) 6.2 ft, DisplayPort™ cable (1.8 m), VGA cable (1.8 m) 5.9 ft
	Documentation	CD (includes user guide, warranty, drivers)
	Software	HP Display Assistant
Other	**User Guide Languages**	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.
	Warranty Languages	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.
	Color	Black
	VESA Mounting	100 mm VESA mount
	Security Lock-Ready	Yes
	Country of Origin	China
Certification and Compliance		TCO Certified, CEL Grade 2, Microsoft WHQL Certification (Windows 10, Windows 8.1, Windows 7), ENERGY STAR® Qualified, EPEAT® Gold[2], CE, CB , KC, KCC, NOM, PSB, ICE, TUV-S, CCC, CECP, SEPA, EPA, ISC, VCCI, FCC, Taiwan: BMSI, SmartWay Transportation Partnership for NA Model
Compatibility		Compatible with platforms using the VESA standard video modes. Recommended for use with HP products.
Service and Warranty		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 warranties.[3]

1. External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.
2. EPEAT ® registered where applicable. EPEAT registration varies by country. See www.epeat.net for registration status by country. See HP's 3rd party option store for solar energy accessory http://www.hp.com/go/options.
3. 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: http://www.hp.com/go/cpc.
4. 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.

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V1	Quickspecs launched
V2	Options and Environmental Sections updated
V3	Response Time of Panel Section updated