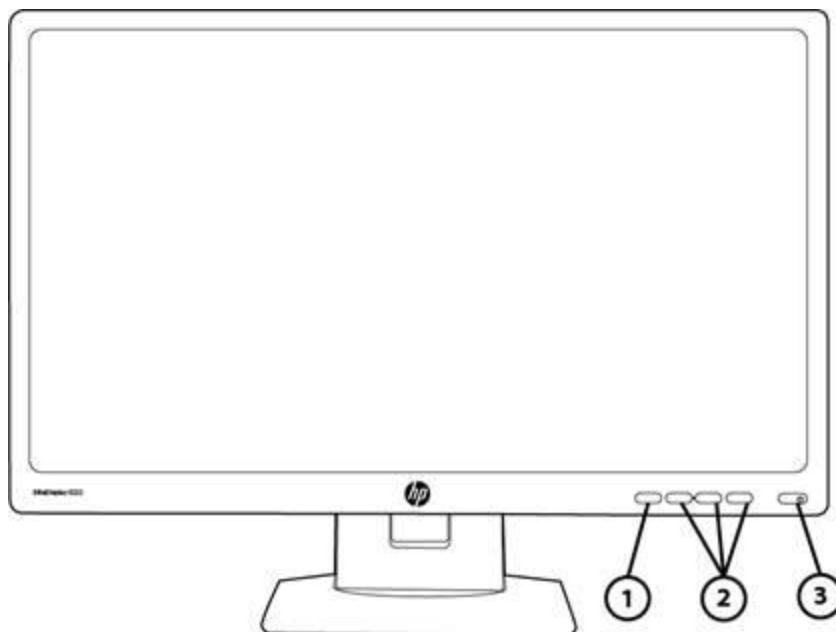*Overview*
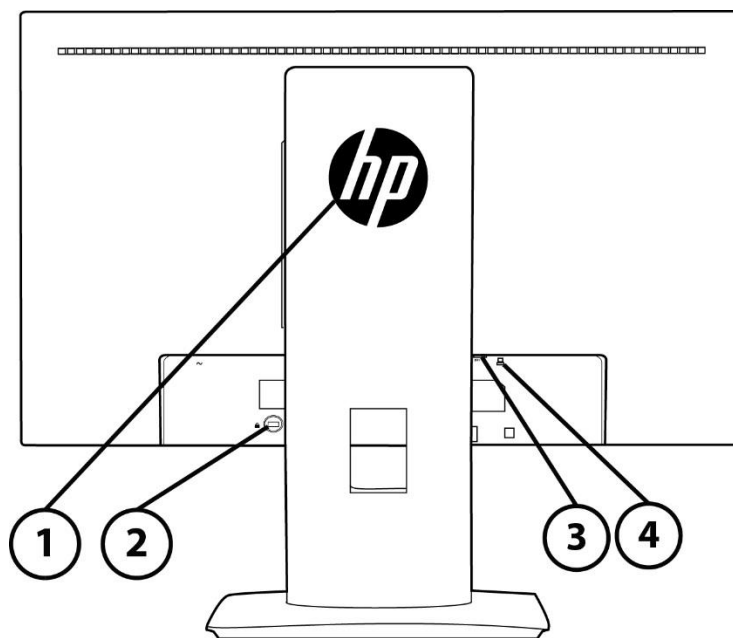
HP EliteDisplay E232 23-inch Monitor
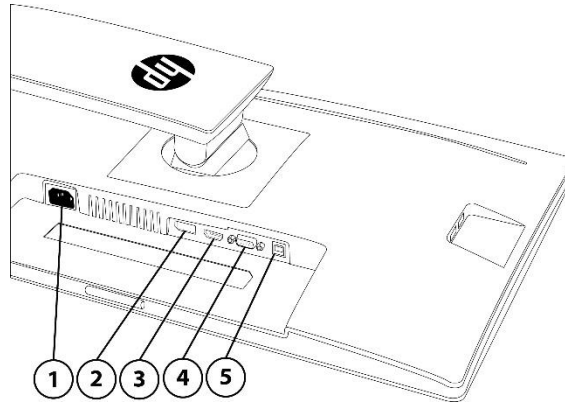

1. Menu button
2. Dynamic OSD function buttons
3. Power button and LED

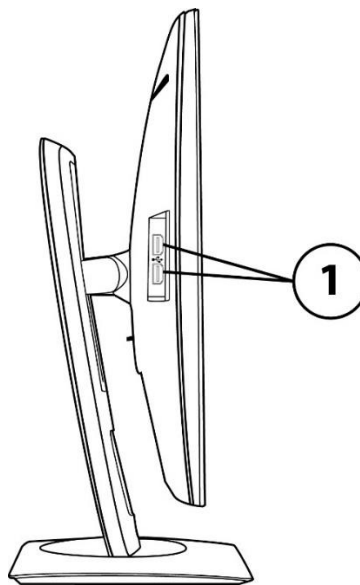|			
1.	VESA mounting pattern available upon removal of column stand	3.	VGA input
2.	Security lock slot	4.	USB 2.0 upstream

Overview

1. Power input
2. DisplayPort v 1.2
3. HDMI input
4. VGA input
5. USB 2.0 upstream

1. USB 2.0 ports
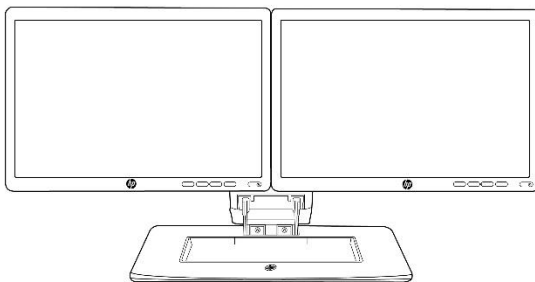
HP EliteDisplay E232 and HP Adjustable Dual Display Stand dual monitor configuration shown. (Note: monitors and stands sold separately)

Your ideal office configuration begins with two HP EliteDisplay E232 monitors combined with an HP Adjustable Dual Display Stand (AW664AA) for a small footprint, high productivity work solution.*

*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

Work smart and comfortably with the HP EliteDisplay E232 23-inch Monitor, a large-screen Full HD IPS display that is Certified for Windows 10. Experience Elite-class presentation features and ergonomic adjustability for everything you do every day.

Key features:

- Work smart and comfortably every day with the large-screen, Full HD HP EliteDisplay E232 23-inch Monitor, which is Certified for Windows 10.
- Enjoy sharp Full HD resolution for all your projects and collaborate easily with 178-degree viewing angles from IPS technology.
- Create the view that's right for you with adjustable tilt, height, swivel, and pivot settings.
- Connect to your choice of PC platform and everyday devices with HDMI, DisplayPort, VGA, and USB connections.
- Attach select HP PC's and HP Thin Clients directly behind the display.[1]
- Connect the display to your PC or notebook and experience all Windows 10 has to offer.
- Get an intelligent, energy-efficient design that is ENERGY STAR® certified, EPEAT® Gold registered[2], and meets TCO Certified Edge requirements with 85% Post-Consumer Recycled plastics.
- Design the screen for how you work with HP Display Assistant software.
- Customize a complete solution with HP accessories[3] designed and tested to work with your display.
- Get three years of service and support, and extend your protection with optional HP Care Packs.[4]

1   Requires HP PC Mounting Bracket for Monitors, sold separately. See product QuickSpecs for exact PC and thin client compatibility.
2   EPEAT® registered where applicable. EPEAT registration varies by country. See www.epeat.net for registration status by country.
3   Each accessory sold separately. Mounting hardware sold separately. Head only model sold separately and availability varies by region.
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. 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

Models:

M1N98AA - HP EliteDisplay E232 23-inch Monitor
N2Q02AA - HP EliteDisplay E232 23-inch Monitor Head Only

Panel		
	Type	23-inch IPS w/LED backlight
	Viewable Image Area (diagonal)	**58,42 cm** (23-inch) widescreen; diagonally measured
	Panel Active Area (W × H)	**50,92x 28,64 cm** (20.05 x 11.27 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)*	1000:1 Static; 5,000,000:1 Dynamic (DCR)
	Response Times*	7 ms gray to gray
	Pixel Pitch*	0.265 (H) x 0.265 (V)mm
	Pixels Per Inch (PPI)*	96
	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%

* 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; Function ; 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 ,Menu control, Management, Language, Information

Signal Interface/ Performance		
	Horizontal Frequency	30-80 kHz
	Vertical Frequency	50-60 Hz
	Native Resolution	1920 x 1080 @ 60 Hz
	Preset Graphic Modes (non-interlaced)	1920 X 1080 @ 60 Hz 1680 X 1050 @ 60 Hz 1600 X 900 @ 60 Hz 1440 X 900 @ 60 Hz 1280 X 1024 @ 60 Hz 1280 X 800 @ 60 Hz 1280 X 720 @ 60 Hz 1024 X 768 @ 60 Hz 800 X 600 @ 60 Hz 640 X 480 @ 60 Hz

QuickSpecs

Technical Specifications

	Maximum Pixel Clock Speed	170 MHz	
	Anti-Glare	Yes	
Video/Other Inputs	**Plug and Play**	Yes	
	Input Connectors	(1) DisplayPort 1.2, (1) HDMI, (1) VGA	
		HDCP support on DisplayPort and HDMI	
	USB	(3) USB 2.0 (two downstream and one upstream)	
	Cables Included	(1) DisplayPort **1,8 m** (5.9 ft) ; (1) VGA **1,8 m** (5.9 ft); (1) USB **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	35 W	
	Typical Power	28 W	
	Sleep Power	0.5 W (standby)	
	Power Cable Length	**1.9 m** (6.2 ft)	
		1.83 m (6 ft - head only model)	
Mechanical	**Dimensions** (W × D × H)	**Unpacked w/stand**	**54,93 x 18,9 x 54,99 cm** (21.64 x 7.45 x 21.65 in)
		Unpacked w/o stand (head only)	**54,93 x 4,96 x 33,69 cm** (21.64 x 1.95 x 13.27 in)
		Packaged	**64 x 22,6 x 41,5 cm** (25.22 x 8.9 x 16.35 in)
	Weight	**Head Only**	**3,63 kg** (8 lb)
		Unpacked with stand	**5,7 kg** (12.56 lb)
		Packaged	**7,3 kg** (16.09 lb)
		Packaged (head only)	**5,3 kg** (11.64 lb)
Ergonomic Features - Not available on head only model	**Detachable Stand**	Yes, ships detached (not included on head-only model)	
	Height Adjustment	Yes, 150 mm	
	Tilt Range	-5° to +25°	
	Swivel	±45°	
	Pivot	90°	
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	

Technical Specifications

Altitude - Operating	**0 to 5,000 m** (0 to 16,404 ft)
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

Technical Specifications

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®
- TCO 6.0 & TCO Edge certified
- 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, 60Hz
Normal Operation	17.19 W	17.3 W	17.29 W
Sleep	0.22 W	0.27 W	0.22 W
Off	0.18 W	0.23 W	0.18 W

Heat Dissipation*

	115VAC, 60Hz	230VAC, 50Hz	100VAC, 60Hz
Normal Operation	59 BTU/hr	59 BTU/hr	59 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 43.3% post-consumer recycled plastic (by wt.)
- This product is 98.0% recycle-able when properly disposed of at end of life.

Packaging Materials

External:	PAPER/Corrugated	752.5 g
Internal:	PLASTIC/EPS (Expanded Polystyrene)	338.6 g
	PLASTIC/Polyethylene low density	31.1 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.

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

Technical Specifications

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/envmanagement.html

Technical Specifications

Options	**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 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 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 Business PC Security Lock v2 Kit— Part number N3R93AA	Help prevent chassis tampering and secure your PC and display in workspaces and public areas with the HP Business PC Security Lock v2 Kit.
	HP PC Mounting Bracket for Monitors— Part number N6N00AA	Customize an altogether better solution with the HP PC Mounting Bracket for Monitors, which lets you attach your HP Desktop Mini, HP Chromebox, or select HP Thin Client directly behind select HP Z Displays and EliteDisplays.
	HP Dual Output USB Graphics Adapter – Part Number C5U89AA	You can boost your productivity by creating a dual-monitor setup with the HP Dual Output USB Graphics Adapter – featuring both DVI-I and DisplayPort inputs to drive displays at high resolutions through a single USB 3.0 connection to your PC.
What's in the box?	**Monitor and Accessories**	HP EliteDisplay E232 23-inch Monitor and column stand or HP Elite E232 23-inch monitor head only ; AC power cord (1.9m), 6 ft or (1.83m), 6 ft - head only model); DisplayPort cable (1.8m), 5.9 ft; VGA cable (1.8m); 5.9 ft, USB cable (1.8m), 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

Technical Specifications

	Security Lock-Ready	Yes
	Country of Origin	China
Certification and Compliance		TCO Certified Edge, CEL Grade 1, Microsoft WHQL Certification (Windows 8.1 and Windows 7), ENERGY STAR® Qualified, EPEAT® Gold[2], CE, CB, KC, KCC, NOM, PSB, ICE, TUV-S, ISO 9241-307, EAC, UL, CSA, PSB, ISC, CCC, CEL, CECP, SEPA, ISC, VCCI, FCC, BSMI, Vietnam MEPS, Australian-New Zealand MEPS, WEEE
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]

ENERGY STAR is a registered mark owned by the U.S. government. All specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

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® Gold where HP registers commercial display products. See www.epeat.net for registration status in your country.
3. 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 http://www.hp.com/go/cpc for details.
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.

Change Log

Change Log	
From v1 to v2 9/28/2015	
Changed	Edited messaging
From v3 to v4 10/15/2015	
Changed	"HP UHD USB Graphics Adapter" to "HP Dual Output USB Graphics Adapter".