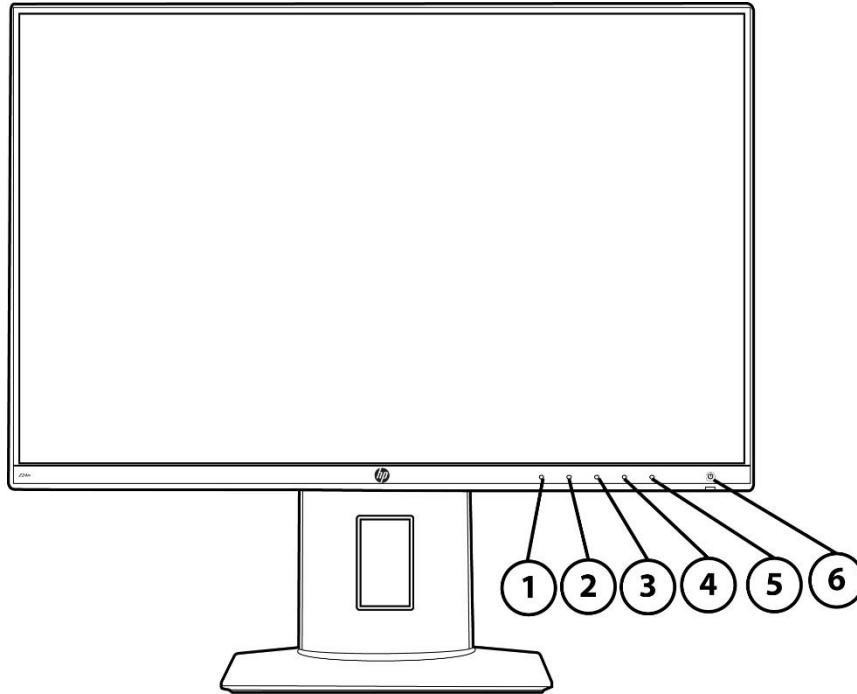
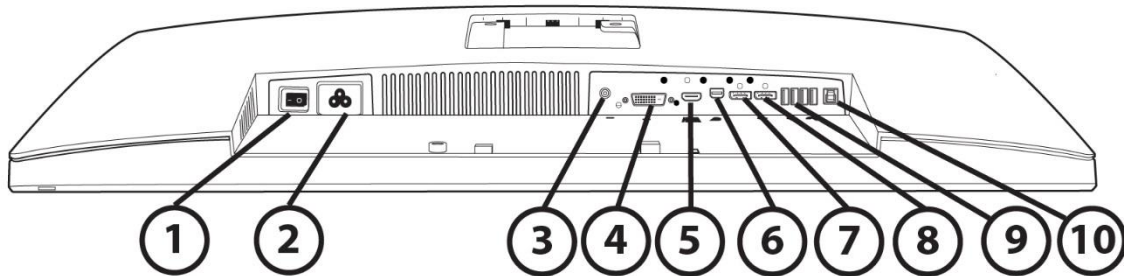


Overview

HP Z24n 24-inch Narrow Bezel IPS Display



- | | |
|------------------|---------------------|
| 1. Menu button | 4. Input control |
| 2. Luminance | 5. Information |
| 3. Color control | 6. Power button/LED |



- | | |
|-------------------------------|---|
| 1. Master power switch | 6. Mini-DisplayPort |
| 2. Power connector | 7. DisplayPort v 1.2 in |
| 3. Audio output 3.5 mm | 8. DisplayPort v 1.2 out |
| 4. DVI-D | 9. (4) USB 3.0 downstream ports (one fast charging) |
| 5. HDMI v 1.4 input (MHL 2.0) | 10. (1) USB 3.0 upstream port |

Overview

Overview

Create a seamless multi-display¹ array with the virtually borderless HP Z24n 24-inch Narrow Bezel IPS Display, which also delivers factory color calibration and flexible connectivity.

Key features:

- Enjoy stunning high resolution and a three-sided borderless design that maximizes the screen and enables seamless tiling of multiple displays.¹
- Count on a factory-calibrated 99% sRGB color gamut for reliable, accurate color between displays and projects.
- Connect to multiple display and devices with a range of integrated ports right at the display.
- Use picture-in-picture or picture-by-picture to boost your multi-tasking productivity.
- Work comfortably with customizable tilt, height adjustment, swivel, and pivot settings.
- Get world-class service and support, and extend your protection with optional HP Care Packs.²
- Reduce power consumption and help lower your costs with an energy-efficient design.

¹ Each display sold separately.

² 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: K7B99A4

Panel	Type	24-inch IPS w/LED backlight
	Viewable Image Area (diagonal)	61,13 cm (24-inch) widescreen; diagonally measured
	Panel Active Area (W × H)	51,84 x 32,4 cm (20.41 × 12.75 in)
	Resolution	1920 x 1200 @ 60 Hz
	Aspect Ratio	16:10
	Viewing Angle	Up to 178° horizontal/178° vertical typical
	Brightness	300 cd/m ²
	Contrast Ratio (Typical)	1000:1 Static; 5,000,000:1 Dynamic (DCR)
	Response Times*	14 ms typical (G-to-G); 8ms with scalar overdrive
	Pixel Pitch	0.270 mm
	Pixels Per Inch (PPI)	94.3 DPI
	Backlight Lamp Life (to half brightness)	30,000 hours minimum
	Color Gamut	Up to 16.7 million colors with the use of FRC technology
	Color Gamut (Typical)	99% sRGB

* 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, Luminance, Color Control, Input Control, Information
	User Programmable Modes	20
	Languages	10 (German, S-Chinese, T-Chinese, Japanese, English, Spanish, French, Italian, Netherlands and Portuguese)
	On Screen Display (OSD) User Controls	Luminance, Color control, Input control, Image Control, PIP control, Power control, OSD Control, Management, Language, Information
	Audio Controls	N/A
Signal Interface / Performance	Horizontal Frequency	30 - 75 kHz
	Vertical Frequency	50 - 60 Hz
	Native Resolution	1920 x 1200 @ 60 Hz
	Preset Graphic Modes (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	
	1600 x 1200 @ 60 Hz	
	1680 x 1050 @ 60 Hz	

Technical Specifications

		1920 x 1080 @ 60 Hz	
		1920 x 1200 @ 60 Hz	
Video/Other Inputs	Maximum Pixel Clock Speed	170 MHz	
	Anti-Glare	Yes	
	Plug and Play	Yes	
	Input/Output Connectors	(1) DVI-D (1) MHL 2.0 ¹ /HDMI 1.4 (1) DisplayPort 1.2, (1) Mini-DisplayPort, (1) DisplayPort 1.2 out HDCP support on all inputs	
	USB	4 USB 3.0 [4 downstream (one fast charging), 1 upstream]	
	Video Cables Included	(1) DisplayPort 1,8 m (5.9 ft) (1) Mini-DisplayPort 1,8 m (5.9 ft) (1) USB 3.0 1,8 m (5.9 ft)	
Multimedia	Audio	(1) Audio output 3.5mm	
	Speakers	N/A	
	Power	Power Supply	Internal
	Input Power	100 - 240 VAC 50/60 Hz	
	Maximum Power	70 W	
	Typical Power	36 W	
	Sleep Power	0.5W (standby)	
	Power Cable Length	1,8 m (5.9 ft)	
Mechanical	Dimensions (W x D x H)	Unpacked w/stand	53.38 x 21.01 x 52.02 cm 21.01 x 8.27 x 20.4 in (max height)
		Unpacked w/o stand (head only)	53.38 x 4.93 x 35.11 cm (21.01 x 1.94 x 13.82 in)
		Packaged	63.2 x 25 x 44 cm (24.88 x 9.84 x 17.32 in)
	Weight	Head Only	3,87 kg (8.51 lb)
		Unpacked	5,78 kg (12.71 lb)
		Packaged	7,38 kg (16.25 lb)
Ergonomic Features	Detachable Stand	Yes, ships detached	
	Height Adjustment	Yes, 130 +/-3 mm	
	Tilt Range	-5° to + 22° vertical	
	Swivel	Yes, 45° +/-2°	
	Pivot	Yes, 90°	
	Quick Release⁵	HP QR2 quick release included	
Environmental	Temperature - Operating	5° to 35° C (41° to 95° F)	
	Temperature - Non-operating	-20° to 60° C (-4° to 140° F)	

Technical Specifications

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)
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 Halogen²	Yes (except cables)
Mercury-Free Display Backlighting	Yes

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:		
		<ul style="list-style-type: none"> • IT ECO declaration • US ENERGY STAR® • TCO 6.0 • 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	19.1 W	19.32 W	19.33 W
	Sleep	0.56 W	0.63 W	0.56 W
	Off	0.26 W	0.32 W	0.25 W

Heat Dissipation*		115VAC, 60Hz	230VAC, 50Hz	100VAC, 60Hz
	Normal Operation	65 BTU/hr	66 BTU/hr	66 BTU/hr
	Sleep	2 BTU/hr	2 BTU/hr	2 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	<ul style="list-style-type: none"> • 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 44.9 % post-consumer recycled plastic (by wt.) • This product is 98.0 % recycle-able when properly disposed of at end of life.
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Packaging Materials	External:	PAPER/Corrugated	837 g
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Technical Specifications

Internal:	PLASTIC/EPS (Expanded Polystyrene)	370 g
	PLASTIC/Polyethylene low density	36.3 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).

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)

Technical Specifications

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 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>

Options

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 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.

Technical Specifications

	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 Quick Release Bracket — Part number EM870AA ⁵	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 Kit — Part number PV606AA	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.
What's in the box?	Monitor and Accessories	HP Z24n 24-inch Narrow Bezel IPS Display, AC power cord 1,8 m (5.9 ft), DisplayPort cable 1,8 m (5.9 ft), Mini-DisplayPort cable 1,8 m (5.9 ft), USB 3.0 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, TCO Certified EDGE, CEL Grade 1, ENERGY STAR® Qualified, EPEAT® Gold ³ , CB, TUV/GS, TUV/Ergo, TUV-S, UL, CCC, CECP, SEPA, BSMI, CE, FCC(Canada), BSMI ,KC ,VCCI ,C-Tick, Microsoft WHQL Certification (Windows 8.1, Windows 8, and Windows 7); SmartWay Transport Partnership (NA)	
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. ⁴	

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1. MHL 2.0 port will charge a MHL compatible smart phone and tablet battery. Requires the smart phone or tablet to be enabled for MHL or have an HDMI dongle to connect to the monitor. See your mobile device specifications.

Technical Specifications

2. Power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.
3. EPEAT® registered where applicable. EPEAT® registration varies by country. See www.epeat.net for registration status in your country.
4. 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.
5. 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	
July 14, 2015 From V1 to v2	
	Changed
	Change DVI- Dual Link to DVI-D in two places.
January 14, 2016 From V2 to V3	
Added	Environmental data table