Overview

HP Z24n 24-inch Narrow Bezel IPS Display
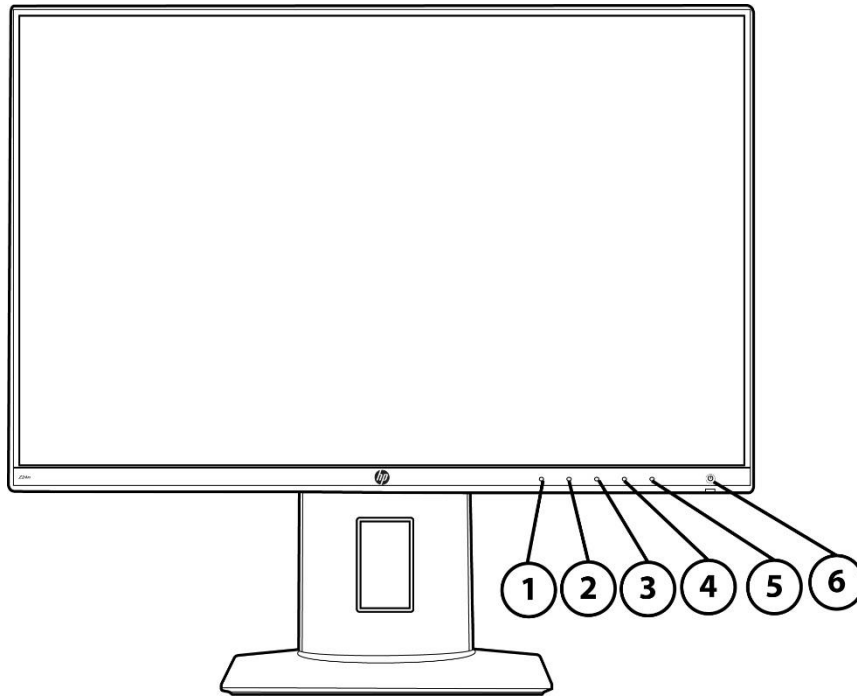
1.	Menu button	**4.**	Input control
2.	Luminance	**5.**	Information
3.	Color control	**6.**	Power button/LED
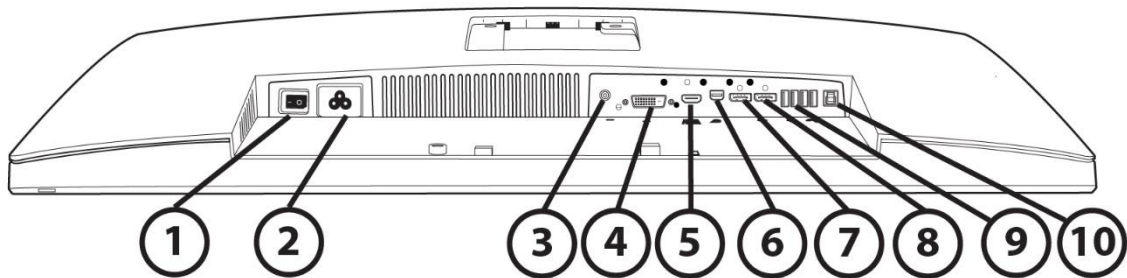
1.	Master power switch	**6.**	Mini-DisplayPort
2.	Power connector	**7.**	DisplayPort v 1.2 in
3.	Audio output 3.5 mm	**8.**	DisplayPort v 1.2 out
4.	DVI-D	**9.**	(4) USB 3.0 downstream ports
5.	HDMI v 1.4 input (MHL 2.0)	**10.**	(1) USB 3.0 upstream port

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Create a seamless multi-display[1] 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.

QuickSpecs

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/m²
	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

Technical Specifications

		1680 x 1050 @ 60 Hz 1920 x 1080 @ 60 Hz 1920 x 1200 @ 60 Hz	
	Maximum Pixel Clock Speed	170 MHz	
	Anti-Glare	Yes	
Video/Other Inputs	**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	
	Daisy Chain[6]	Yes, via DisplayPort™ Up to 4 Displays at FHD or WUXGA	
	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)	
	Audio	(1) Audio output 3.5mm	
Multimedia	**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 × D × 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 Release[5]	HP QR2 quick release included	

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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)
	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[2]	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: • 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.

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 • 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.		
Packaging Materials	**External:**	PAPER/Corrugated	837 g
	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).		

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HP Z24n 24-inch Narrow Bezel IPS Display

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

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Technical Specifications

<table>
<tr><td></td><td></td><td>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.</td></tr>
<tr><td></td><td>Hewlett-Packard Corporate Environmental Information</td><td>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</td></tr>
<tr><td>Options</td><td>HP LCD Speaker Bar—Part number NQ576AA</td><td>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.</td></tr>
<tr><td></td><td>HP Single Monitor Arm— Part number BT861AA</td><td>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.</td></tr>
<tr><td></td><td>HP DisplayPort Cable Kit —Part number VN567AA</td><td>Connects a DisplayPort connector on an HP Business Desktop computer to a DisplayPort connector on a monitor</td></tr>
<tr><td></td><td>HP Quick Release Bracket— Part number EM870AA[5]</td><td>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.</td></tr>
<tr><td></td><td>HP Business PC Security Lock Kit — Part number PV606AA</td><td>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.</td></tr>
<tr><td>What's in the box?</td><td>Monitor and Accessories</td><td>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)</td></tr>
<tr><td></td><td>Documentation</td><td>CD (includes user guide, warranty, drivers)</td></tr>
<tr><td></td><td>Software</td><td>HP Display Assistant</td></tr>
<tr><td>Other</td><td>User Guide Languages</td><td>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.</td></tr>
</table>

Technical Specifications

	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.
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.
6. Depending on Graphics Card capability.

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
August 02, 2017 From V3 to V4	
Removed	"(one fast charging)" from callout 9