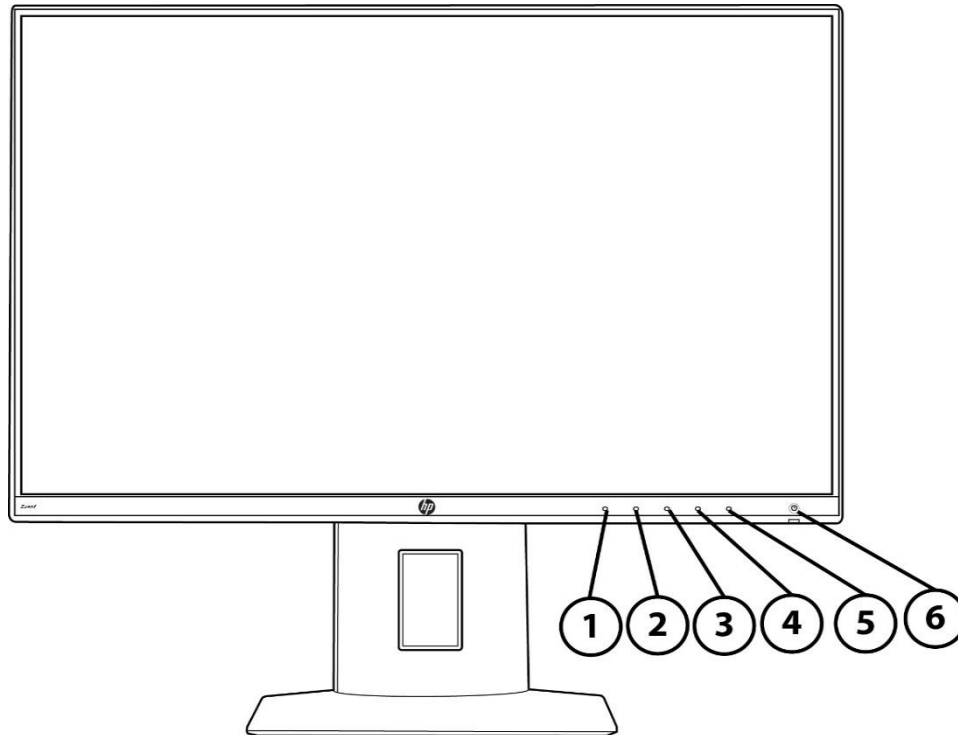
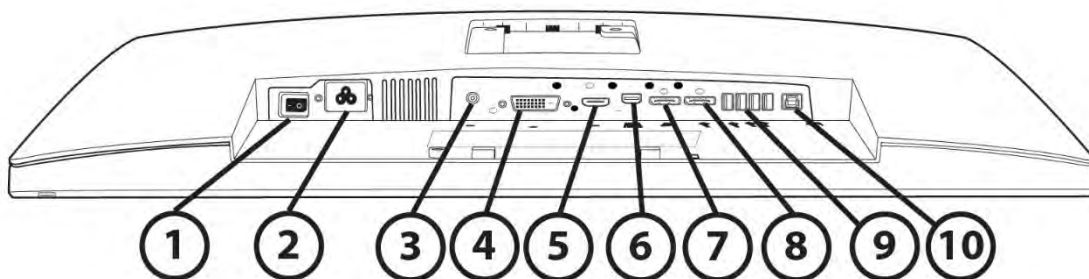


### Overview

### HP Z24nq 23.8-inch Narrow Bezel IPS Display



- |                  |                     |
|------------------|---------------------|
| 1. Menu button   | 4. Color control    |
| 2. Information   | 5. Luminance        |
| 3. Input 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-Dual Link              | 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

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### Overview

Enjoy quad HD visuals on the HP Z24nq Narrow Bezel IPS Display, which has an edge-to-edge 23.8-inch diagonal screen for easy tiling of multiple displays<sup>1</sup>, plus color calibration and flexible connectivity.

### Key features:

- Experience even more of the 23.8-inch diagonal 2560 x 1440 resolution<sup>2</sup> screen with a three-sided borderless design.
- Get more than 100% factory-calibrated RGB color for reliable color accuracy across all of your projects.
- Add additional displays<sup>1</sup> and your choice of devices with a range of integrated ports.
- 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.
- Design the screen for how you work with HP Display Assistant software.
- Get world-class service and support, and extend your protection with optional HP Care Packs.<sup>5</sup>
- Reduce power consumption and help lower your costs with an energy-efficient design.

<sup>1</sup> Each display sold separately.

<sup>2</sup> All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.

<sup>5</sup> 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

**Models:** L1K59A4

<b>Panel</b>	<b>Type</b>	23.8 in AHVA w/LED backlight
	<b>Viewable Image Area (diagonal)</b>	<b>60,44 cm</b> (23.8 in) widescreen; diagonally measured
	<b>Panel Active Area (W × H)</b>	<b>526.85x296.35mm</b>
	<b>Resolution</b>	2560 x 1440 @ 60 Hz
	<b>Aspect Ratio</b>	16:9
	<b>Viewing Angle</b>	Up to 178° horizontal/178° vertical typical
	<b>Brightness</b>	300 cd/m <sup>2</sup>
	<b>Contrast Ratio (Typical)</b>	1000:1 Static; 5,000,000:1 Dynamic (DCR)
	<b>Response Times*</b>	8 ms - gray to gray
	<b>Pixel Pitch</b>	0.2058 x 0.2058 mm
	<b>Pixels Per Inch (PPI)</b>	123.4 DPI
	<b>Backlight Lamp Life (to half brightness)</b>	30,000 hours minimum
	<b>Color Gamut</b>	Up to 16.7 million colors with the use of FRC technology
	<b>Color Gamut (Typical)</b>	sRGB
	* Performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.	
<b>User Controls</b>	<b>Buttons or Switches</b>	Press the key, the monitor will indicate the function.
	<b>User Programmable Modes</b>	Yes, 10
	<b>Languages</b>	10 (German, S-Chinese, T-Chinese, Japanese, English, Spanish, French, Italian, Netherlands and Portuguese)
	<b>On Screen Display (OSD) User Controls</b>	Luminance , Color control, Input control, Image Control, PIP control, Power control, OSD Control, Management, Language, Information
	<b>Audio Controls</b>	N/A
<b>Signal Interface/ Performance</b>	<b>Picture-in-Picture / Picture-by-Picture</b>	Yes
	<b>Horizontal Frequency</b>	30 - 90 kHz
	<b>Vertical Frequency</b>	50 - 60 Hz
	<b>Native Resolution</b>	2560x1440 @ 60 Hz(QHD)
	<b>Preset Graphic Modes (non-interlaced)</b>	640 x 480 @ 60Hz
		720 x 400 @70Hz
		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		
1366 x 768 @60Hz		
1440 x 900 @ 60 Hz		
1600 x 900 @ 60 Hz		
1600 x 1200 @ 60 Hz		
1680 x 1050 @ 60 Hz		
1920 x 1080 @ 60 Hz		
1920 x 1200 @ 60 Hz		
2560 x 1440 @ 60 Hz		
<b>Maximum Pixel Clock Speed</b>	250 MHz	

### Technical Specifications

<b>Video/Other Inputs</b>	<b>Anti-Glare</b>	Yes	
	<b>Plug and Play</b>	Yes	
	<b>Input/Output Connectors</b>	(1) DVI-D (1) MHL/HDMI (1) mini-DP (2) DisplayPort 1.2 (one in and one out)	
	<b>USB</b>	Yes; 4 USB 3.0 (Four downstream and one upstream)	
	<b>Video Cables Included</b>	DP <b>1,8 m</b> (5.9 ft); USB <b>1,8 m</b> (5.9 ft)	
<b>Multimedia</b>	<b>Audio</b>	(1) Audio output	
	<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>	75 W	
	<b>Typical Power</b>	48 W	
	<b>Sleep Power</b>	0.5W (standby)	
	<b>Power Cable Length</b>	<b>1,8 m</b> (5.9 ft)	
<b>Mechanical</b>	<b>Dimensions</b> (W × D × H)	<b>Unpacked w/stand</b>	<b>54,06 x 21,01 x 50,55 cm</b> 21.28 x 8.27 x 19.90 in
		<b>Unpacked w/o stand</b> (head only)	<b>54,06 x 5,04 x 32,34 cm</b> 21.28 x 1.99 x 12.74 in
		<b>Packaged</b>	<b>63,2 x 25 x 41 cm</b> 24.88 x 9.84 x 16.14 in
	<b>Weight</b>	<b>Head Only</b>	<b>3,6 kg</b> (7.93 lb)
		<b>Unpacked</b>	<b>5,5 kg</b> (12.11 lb)
		<b>Packaged</b>	<b>7,2 kg</b> (15.86 lb)
<b>Ergonomic Features</b>	<b>Detachable Stand</b>	Yes	
	<b>Height Adjustment</b>	130 mm	
	<b>Tilt Range</b>	-2 to +22 degrees	
	<b>Swivel</b>	Yes, 45 +/-2 degrees (Clockwise/Counterclockwise)	
	<b>Pivot</b>	Yes	
<b>Environmental</b>	<b>Quick Release<sup>5</sup></b>	HP QR2 quick release included	
	<b>Temperature - Operating</b>	<b>5° to 35° C</b> (41° to 95° F)	
	<b>Temperature - Non-operating</b>	<b>-20° to 60° C</b> (-4° to 140° F)	
	<b>Humidity - Operating</b>	20% to 80% non-condensing	
	<b>Humidity - Non-operating</b>	5% to 95%	
	<b>Altitude - Operating</b>	<b>0 to 5,000 m</b> (0 to 16,400 ft)	
	<b>Altitude - Non-operating</b>	<b>0 to 12,192 m</b> (0 to 40,000 ft)	
	<b>White LED Backlights</b>	Yes	
	<b>CCFL Panel</b>	No	
	<b>Arsenic-Free Display Glass</b>	Yes	
<b>Low Halogen</b>	Yes		

### Technical Specifications

**Mercury-Free Display Backlighting** Yes, Mercury-free LED backlighting

**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)**

	<b>115VAC, 60Hz</b>	<b>230VAC, 50Hz</b>	<b>100VAC, 60Hz</b>
Normal Operation	22.59 W	22.44 W	22.7 W
Sleep	0.22 W	0.25 W	0.22 W
Off	0.18 W	0.21 W	0.18 W

**Heat Dissipation\***

	<b>115VAC, 60Hz</b>	<b>230VAC, 50Hz</b>	<b>100VAC, 60Hz</b>
Normal Operation	77 BTU/hr	77 BTU/hr	78 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](http://www.epeat.net)
- Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.
- This product contains 45.4% post-consumer recycled plastic (by wt.)
- This product is 97.8% recycle-able when properly disposed of at end of life.

**Packaging Materials**

<b>External:</b>	PAPER/Corrugated	760.3 g
<b>Internal:</b>	PLASTIC/EPS (Expanded Polystyrene)	352.7 g
	PLASTIC/Polyethylene low density	38.7 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 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.

### Technical Specifications

<b>Hewlett-Packard Corporate Environmental Information</b>	For more information about HP's commitment to the environment:	
	Global Citizenship Report	<a href="http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html">http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html</a>
	Eco-label certifications	<a href="http://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html">http://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html</a>
	ISO 14001 certificates:	<a href="http://www.hp.com/hpinfo/globalcitizenship/environment/operations/envmanagement.html">http://www.hp.com/hpinfo/globalcitizenship/environment/operations/envmanagement.html</a>
<b>Options</b>	<b>HP LCD Speaker Bar</b> — 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.
	<b>HP Single Monitor Arm</b> —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.
	<b>HP DisplayPort Cable Kit</b> —Part number VN567AA	Connects a DisplayPort connector on an HP Business Desktop computer to a DisplayPort connector on a monitor
	<b>HP Quick Release Bracket</b> — Part number EM870AA <sup>5</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.
	<b>HP Business PC Security Lock Kit</b> — 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.
<b>What's in the box?</b>	<b>Monitor and Accessories</b>	HP Z24nq 23.8-inch Narrow Bezel IPS Display AC power cord (1.8m) 6.2 ft USB cable (1.8m) 6.2 ft DisplayPort Cable (1.8m) 6.2 ft CD (includes U.G., warranty, drivers) CD (includes user guide, warranty, drivers) HP Display Assistant
	<b>Documentation</b>	
	<b>Software</b>	
<b>Other</b>	<b>User Guide Languages</b>	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.
	<b>Warranty Languages</b>	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.
	<b>Color</b> <b>VESA Mounting</b>	Black
	<b>Security Lock-Ready</b> <b>Country of Origin</b>	Yes China

### Technical Specifications

<b>Certification and Compliance</b>	ENERGY STAR®, EPEAT® Gold <sup>3</sup> , TCO Edge, TCO, China Energy Label Grade 1, CB, TUV/GS, TUV/Ergo, TUV-S, UL, CCC, CECP, SEPA, BSMI, For EMI, CE, FCC(Canada), BSMI ,KC ,VCCI ,C-Tick, SmartWay Transport Partnership - NA only, Microsoft WHQL Certification (Windows 8.1, Windows 8, Windows 7)
<b>Compatibility</b>	Compatible with platforms using the VESA standard video modes. Recommended for use with HP products.
<b>Service and Warranty</b>	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. <sup>4</sup>

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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](http://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.



