

Technical Specifications

HP DreamColor Z24x G2 24-inch Display



- 1. Programmable hotkey Function buttons** 4 programmable hotkey function buttons with 12 mappable functions
- 2. Power/LED** Power On/Off

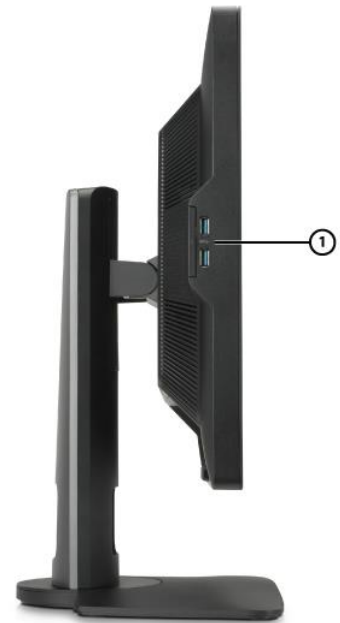
LED:
fully powered = white
sleep mode = amber
sleep timer mode = flashing amber
- 3. Cable Management** Effortless routing of cables through the cable management tunnel at the base of the column

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Rear

1. Security Lock Slot



Side

1. 2- USB 3.0



1. Power Switch
2. Power Cable Connector
3. DisplayPort™ 1.2 (input)
4. DVI-D
5. HDMI 1.4
6. DisplayPort™ 1.2 (output)
7. Audio out (analog)
8. 1- USB 3.0 (upstream)
9. 2- USB 3.0 (downstream)

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Models: 1JR59A4

Panel	<p>Type 24-inch IPS Gen 2, LED Backlit</p> <p>Viewable Image Area (diagonal) 60,96 cm (24 in) widescreen; diagonally measured</p> <p>Panel Active Area (W x H) 52 x 32,56 cm (20.47 × 12.81 in.)</p> <p>Panel Type Gen 2 IPS (Gen 2 technology, also called AH-IPS, enables lower power consumption)</p> <p>Resolution 1920 × 1200 @ 60 Hz</p> <p>Aspect Ratio 16:10</p> <p>Viewing Angle (typical) Up to 178° horizontal/178° vertical (10:1 minimum contrast ratio)</p> <p>Brightness (typical)* 350 cd/m²</p> <p>Contrast Ratio (typical)* 1,000:1</p> <p>Dynamic Contrast Ratio (typical)* 5,000,000:1</p> <p>Response Time (typical)* 6 ms gray-to-gray</p> <p>Pixel Pitch 0.270 mm</p> <p>Backlight Lamp Life (to half brightness) 30,000 hours minimum</p> <p>Color Support** 10-bit (8+2 FRC), up to 1.07 billion colors</p> <p>Color Gamut 100% of sRGB, 100% of BT.709, 99% of AdobeRGB, 97% of DCI-P3</p>
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*All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.

** With the use of FRC technology.

User Controls	<p>On Screen Display (OSD) User Controls Color Space, Video Input, Image Control, PIP Control, Language, Management, Menu and Message Control, Information, Factory Reset</p> <p>Monitor Control Buttons or Switches Master power switch (rear), secondary power, 5 programmable OSD/function buttons</p> <p>User-Assignable Function Buttons Yes, 4</p> <p>Languages 10 (English, Spanish, German, French, Italian, Netherlands, Portuguese, Japanese, T-Chinese and S-Chinese)</p>
Color Management	<p>Factory Color Calibrated Yes (sRGB, BT.709, Adobe RGB)</p> <p>Color Space / Subsampling Support RGB 4:4:4, YCbCr 4:4:4, YCbCr 4:2:2</p> <p>RGB Channel Adjust Yes, Gain</p> <p>User Calibration Support Host software (Windows or macOS)</p> <p>External Calibration Instrument Support X-Rite i1Display Pro, Klein K10-A</p>
Signal Interface/ Performance	<p>Horizontal Frequency 24–80 kHz</p> <p>Vertical Frequency 24–60 Hz</p> <p>Native Resolution 1920 × 1200 @ 60 Hz</p> <p>Preset VESA Graphic Modes (non-interlaced) 640 × 480 @ 60Hz 800 × 600 @ 60 Hz 1024 × 768 @ 60 Hz 1280 × 720 @ 60 Hz 1280 × 960 @ 60 Hz 1280 × 1024 @ 60 Hz 1440 × 900 @ 60 Hz 1600 × 1200 @ 60 Hz 1680 × 1050 @ 60 Hz 1920 × 1080 @ 60 Hz 1920 × 1200 @ 60 Hz</p> <p>Maximum Pixel Clock Speed 170 MHz</p>

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Anti-Glare	Yes
Flicker Free	Yes
Default Color Temperature	D65 (6504K)

VIDEO/OTHER INPUTS

Connector Types	DisplayPort™	(1) DisplayPort™ 1.2 (1 input and 1 output)
	HDMI	(1) HDMI 1.4
	DVI-D	(1) Single Link
	HDCP support	Yes, all video inputs
USB Port Specifications	Audio	(1) Audio out (analog)
	USB Version	3.0
Cables Included	USB Hub	Yes
	Downstream Ports	4 Ports
	Upstream Ports	1 Port
	Video Cables Included	(1) DVI-D 1,8 m (5.9 ft), (1) DisplayPort™ 1,8 m (5.9 ft)
	USB Cable Included	(1) USB 3.0 1,8 m (5.9 ft)

POWER

Power	Power Supply	Internal
	Input Power	90 - 265 VAC at 45 - 63 Hz
	ENERGY STAR® Power¹	18.57 W
	Typical Power²	13.5 W
	Maximum Power³	54.18 W
	Energy Saving/Standby Mode	0.5 W
	Power Cable Length	1,9 m (6.2 ft)

DIMENSIONS AND WEIGHT

Mechanical	Dimensions (W x D x H)	Unpacked w/stand (highest setting)	55,94 x 23,8 x 52,5 cm (22 x 9.4 x 20.7 in)
		Unpacked w/o stand (head only)	55,94 x 6,65 x 36,5 cm (22 x 2.6 x 14.4 in)
		Packaged	66 x 45 x 30,1 cm (26 x 17.7 x 11.8 in)
	Weight	Head Only	4,73 kg (10.4 lb)
		Unpacked	6,98 kg (15.4 lb)
		Packaged	8,98 kg (19.7 lb)

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MONITOR FEATURES

Plug and Play	Yes
Color	Black
4-Way Comfort Adjust	Easily adjust the display in height, tilt, swivel and pivot for maximum comfort.
Integrated Quick Release⁹	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.
Cable Management	Enhanced cable management for easy concealment of power, video and USB cables. Effortless routing of cables through the cable management tunnel at the base of the column.
Detachable Stand	Yes, ships detached
Tilt Range	-5° to + 20° vertical
Swivel Range	45°L to 45°R
Display height adjustment:	Adjustment Range: 151 mm Minimum (desk to bottom of display): 16 mm Maximum (desk to bottom of display): 167 mm
Pivot Rotation	Yes
VESA Mounting	Yes, 100 mm with integrated mount
Security Lock-Ready	Yes
Picture-in-Picture, Picture-by-Picture	Yes

ENVIRONMENTAL Specifications

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% Relative Humidity 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 Halogen⁴	Yes (except cables)
Mercury-Free Display Backlights	Yes

OPTIONS (Each sold separately)

HP USB Graphics Adapter— Part number NL571AA	Enables connection of up to six simultaneous displays to help you boost productivity and multi-task across several open applications. Use one Adapter to bridge between a notebook or desktop PC and second monitor or use multiple Adapters to connect several displays to each other.
HP Thin Client Mount Kit— Part number E5J35AA	Attach your HP Thin Client or USDT PC to the back of select HP Z Displays and maintain optimal ergonomic adjustability with the HP Thin Client Mount Kit. Simply mount an HP Thin Client to the Kit's VESA plate, slide it into place on the back of an HP Z24i, Z27i or Z30i IPS Display stand, and you're ready to go.

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**HP LCD Speaker Bar—
Part number NQ576AA**

Powered directly by the monitor or the PC, the Speaker Bar seamlessly attaches to the monitor's lower bezel to bring full audio support to select HP LCD monitors. Features include dual speakers with full sound range and external jack for headphones. Sold separately.

**HP Integrated Work Center Stand
- USDT / Thin Clients —
Part numbers E8H16AA/AT
(black and meteorite),
LH526AA/AT (black and silver).⁸**

HP Integrated Work Center Stand - USDT / Thin Clients - The HP Integrated Work Center Stand is designed to help maximize the use of limited desk space without compromising performance or productivity by accommodating an HP Ultra-slim Desktop PC or an HP Thin Client, and most HP 17 to 24-inch¹ diagonal LCD monitors, with VESA standard mounting brackets.

**HP Integrated Work Center Stand
for Small Form Factors v3 —
Part number F2P06AA⁷**

Maximize your available work space with the stylish and innovative HP Integrated Work Center for Small Form Factors v3 (HP IWC SFF v3), designed to match the newest HP PC designs. Create a customized "all-in-one" solution by combining an HP Small Form Factor (SFF) Business Desktop PC or Workstation with an LED monitor up to 24 diagonal inches.

**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, 50 degrees of tilt, and 360 degrees of pan and rotation – all at your fingertips -- helping you stay comfortable and productive throughout the day.

**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 Display and Notebook II
Stand—Part number E8G00AA**

Quickly and easily create a comfortable workspace for your notebook or notebook and docking station and an external display with the HP Display and Notebook II Stand, which brings your notebook PC, docking station, and display up off the desk.

**HP Adjustable Display Stand—
Part number AW663AA**

Turn your HP Business Notebook into a desktop solution supporting up to a 24 inch display. A dual-hinged, smooth-motion display stand allows for greater depth, height and tilt adjustment for maximum comfort.

**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 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.

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Eco-Label Certifications & declarations	<p>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:</p> <ul style="list-style-type: none"> • 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	18.57 W	18.25 W	18.65 W
Sleep	0.48 W	0.52 W	0.47 W
Off	0.23 W	0.28 W	0.23 W
Heat Dissipation*	115VAC, 60Hz	230VAC, 50Hz	100VAC, 50Hz
Normal Operation	63 BTU/hr	62 BTU/hr	63 BTU/hr
Sleep	2 BTU/hr	2 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	<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 19.0% post-consumer recycled plastic (by wt.) • This product is 98.6% recycle-able when properly disposed of at end of life. 		
Packaging Materials	External:	PAPER/Corrugated	1265 g
	Internal:	PLASTIC/EPS (Expanded Polystyrene)	900 g
		PLASTIC/Polyethylene low density	110 g
RoHS Compliance	<p>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).</p>		

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<p>Material Usage</p>	<p>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):</p> <ul style="list-style-type: none"> • 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)
<p>Packaging</p>	<p>HP follows these guidelines to decrease the environmental impact of product packaging:</p> <ul style="list-style-type: none"> • 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.
<p>End-of-life Management and Recycling</p>	<p>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.</p> <p>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.</p>

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HP, Inc. Corporate Environmental Information	<p>For more information about HP's commitment to the environment:</p> <p>Global Citizenship Report http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html</p> <p>Eco-label certifications http://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html</p> <p>ISO 14001 certificates: http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c04755842 and http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf</p>

WHAT'S IN THE BOX?

What's in the box?	Monitor and Accessories	HP DreamColor Z24x G2 24-inch Display, AC power cord, USB 3.0 cable, DVI-D cable, DisplayPort™ 1.2 cable
	Documentation	DVD documentation kit, factory calibration report
Other	Software included	HP DreamColor Calibration
	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.
	Country of Origin	China

CERTIFICATION AND COMPLIANCE

Certification and Compliance	Microsoft WHQL Certification (Windows 10, Windows 8 and Windows 7), ENERGY STAR® 7 Certified, SmartWay Transport Partnership (NA only)
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. ⁶
Zero Bright Dot Policy*	Yes

*The HP Pixel Policy allows no bright sub-pixel defects for this display. For complete details, see <http://support.hp.com/us-en/document/c00288895>.

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ENERGY STAR is a registered trademark owned by the U.S. Environmental Protection Agency. DisplayPort™ and the DisplayPort™ logo are trademarks owned by the Video Electronics Standards Association (VESA®) in the United States and other countries.

1. ENERGY STAR® power is measured with factory defaults, brightness at ENERGY STAR® level of 200 cd/m² and with no USB loads.
2. Default Power is measured with factory defaults, including factory default brightness and USB ports loaded at 25% of maximum.
3. Maximum Power is measured with monitor at maximum brightness and with USB ports loaded at 100% of maximum.
4. External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.
5. EPEAT® Gold where HP registers commercial display products. See www.epeat.net for registration status in your country.
6. 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.
7. 17 to 24-inch diagonal monitors need to meet supported weight limits of 6 to 12.1 lbs. (2.7 to 5.5 kg).
8. The Integrated Work Center Stand has been designed to support 17 to 24-inch diagonal HP LCD monitors from 2.3 kg to 5.2 kg (5.07 lbs to 11.24 lbs).
9. 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.

