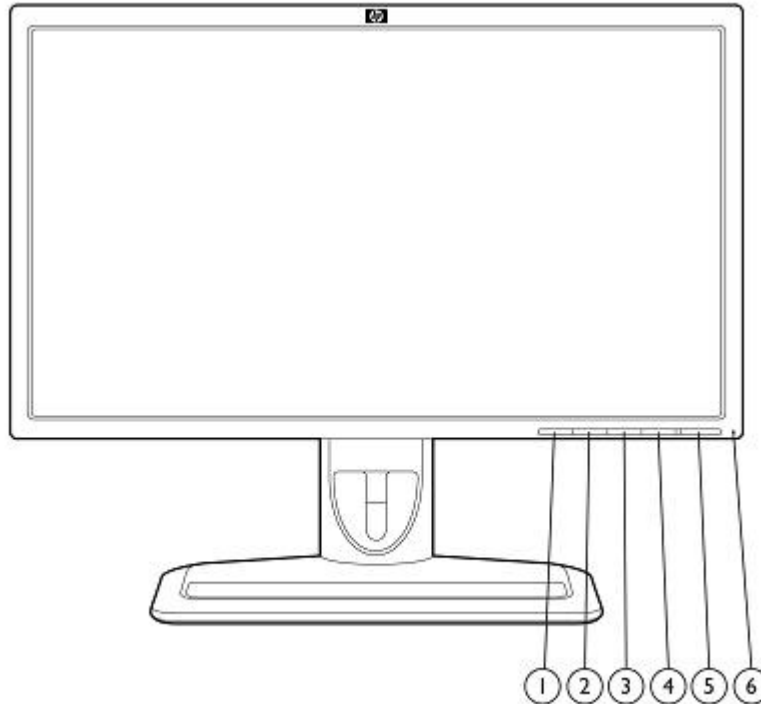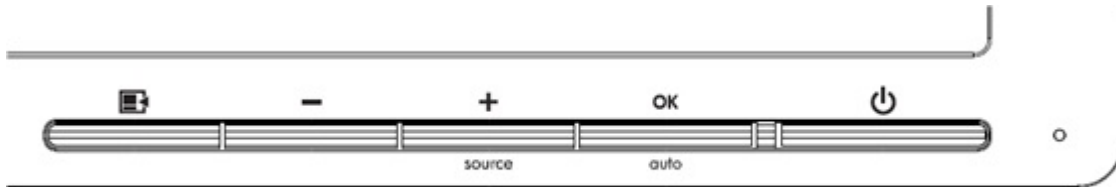# QuickSpecs

Overview - HP ZR22w 21.5-inch S-IPS LCD Monitor

1. Menu: Opens, selects or exits the OSD menu.

2. Minus (-): Navigates backward through the OSD menu and decreases adjustment levels.

3. Plus (+)/Source: Navigates forward through the OSD menu and increases adjustment levels; when the OSD menu is inactive, selects the video input (VGA or DVI or DisplayPort)

4. OK/Auto: When the OSD menu is inactive, activates the auto adjustment feature to optimize the screen image.

5. Power: Turns the monitor on or off.

6. Power LED:
   Blue = Fully powered.
   Amber = Sleep mode.
   Flashing Amber = Sleep Timer mode

ZR22w Bezel Buttons

Models

VM626A4 – ZR22w display head with standard height stand
XU257A4 – ZR22w display head only with no stand

QuickSpecs

Technical Specifications - HP ZR22w 21.5-inch S-IPS LCD Monitor

Panel	Type	Wide-Aspect Active Matrix TFT (thin film transistor)
	Viewable Image Area	**54,61 cm** (21.5 in) widescreen; diagonally measured
	Screen Opening (W x H)	**47,5 x 26,7 cm** (18.87 x 10.5in)
	Panel Type	S-IPS (UH-IPS technology for improved energy efficiency)
	Resolution	1920 x 1080, Full HD
	Aspect Ratio	16:9
	Viewing Angle (typical)	Up to 178° horizontal/178° vertical (10:1 minimum contrast ratio)
	Brightness (typical)*	250 nits (cd/m^2)
	Contrast Ratio (typical)*	1000:1, 3000:1 DCR (Dynamic Contrast Ratio)
	Response Time (typical)*	8 ms (gray to gray), 16 ms (on/off)
	Pixel Pitch	0.2475 mm
	Backlight Lamp Life (to half brightness)	50K hours
	Color Support	16.7 million colors
	Color Gamut Size vs. NTSC Coverage of sRGB	82% (CIE 1976) 96% (CIE 1931), 90% (CIE 1976)
	*All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.	
On Screen Display (OSD) **Controls**	Buttons or Switches	OSD menu select, OSD down, OSD UP/Source, OK/auto, power
	Languages	English, French, German, Spanish, Italian, Dutch, Japanese, S. Chinese, T. Chinese, and Brazilian Portuguese
	User Controls	Brightness, contrast, OSD control, color temperature (5000k, 6500k (sRGB), 9300k, custom), individual color control, information, video input control, clock, clock phase, monitor management, factory reset
Signal Interface/ Performance	Horizontal Frequency	24 to 94 KHz (DVI input for modes with pixel clock less than 165MHz)
	Vertical Frequency	50 to 76 Hz (DVI input for modes with pixel clock less than 165 MHz)
	Native Resolution	1920 x 1080 @ 60 Hz, 2.1 Million pixels
	Preset VESA Graphic Modes (non-interlaced)	1920 x 1080 @ 60 Hz
		1680 x 1050 @ 60 Hz
		1600 x 1200 @ 60 Hz
		1440 x 900 @ 60 Hz
		1280 x 1024 @ 60 Hz
		1280 x 960 @ 60 Hz
		1280 x 720 @ 60 Hz
		1024 x 768 @ 60 Hz
		800 x 600 @ 60 Hz
		640 x 480 @ 60 Hz
	Text Mode	720 x 400 @ 70 Hz
	Maximum Pixel Clock Speed	200 MHz (analog input); 165 MHz (DVI input & DP input)

Technical Specifications - HP ZR22w 21.5-inch S-IPS LCD Monitor

	User Programmable Modes	Yes, 20	
	Anti-Glare	Yes	
	Anti-Static	Yes	
	Default Color Temperature	6500 K	
Video/Other Inputs	Plug and Play	Yes	
	Self Powered USB 2.0 Hub	One upstream, four downstream ports (cable included)	
	USB Cable Length	1,8 m (5.9 ft)	
	Input Connectors	1 DisplayPort connector, 1 DVI-D connector, 1 VGA connector, HDCP support on DisplayPort and DVI.	
	Input Impedance	75 ohms ± 10%	
	Sync Input	Separate sync (HSYNC/VSYNC)	
	DVI-D Video Cable Length	1,8 m (5.9 ft)	
	DisplayPort Video Cable Length	1,8 m (5.9 ft)	
Power	Input Power	Auto-Sensing, 100 to 240 VAC, 50 +/-3 Hz to 60 +/-3 Hz)	
	Frequency	47.5 to 63 Hz	
	Typical Power Consumption	33.5 watts (120VAC, USB ports 25% of maximum load)	
	Maximum	< 44 watts	
	Power Saving	< 1 watt sleep mode, < 1 watt off	
	Power Cable Length	1,9 m (6.2 ft)	
Mechanical	Dimensions (H x W x D)	Unpacked w/stand (single)	36,7 to 45,7 x 50,7 x 23,0 cm (14.4 to 18.0 x 20.0 x 9.1 in)
		Unpacked w/o stand (head only)	30,3 x 50,7 x 6,4 cm (11.9 x 20.0 x 2.5 in)
		Packaged (single)	39,4x 57,1x 31,6 cm (15.5 x 22.5 x 12.4 in)
	Weight	Unpacked w/stand (single)	7,24 kg (15.9 lb)
		Unpacked w/o stand (head only)	4,26 kg (9.4lb)
		Packaged (single)	9,66 kg (21.3lb)
Ergonomic Features	8-Way Comfort Adjust	Easily adjust the display in height, tilt, swivel and pivot for maximum comfort. Eight degrees of adjustment freedom including height up/down, tilt forward/back, swivel left/right and pivot portrait/landscape.	
	HP Quick Release	Ultra convenient set up. Easily mount and detach the display head from the stand.	
	Cable Management	Enhanced cable management for easy concealment of power, video and USB cables. Effortless routing of cables through the base of the column with removable cover plate.	
	Detachable Stand	Stand ships detached and easily attaches with the HP Quick Release.	

Technical Specifications - HP ZR22w 21.5-inch S-IPS LCD Monitor

	Tilt Range	-5° to + 30° vertical
	Swivel Range	-45° to + 45°
	Height Adjustable	Yes, range **9,0 cm** (3.5 in)
	Pivot Rotation	Yes
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	**+5,000 m** (16,400 ft)
	Altitude - Non-operating	**+12,192 m** (40,000 ft)

Environmental Data

Energy Certifications and 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:

- ENERGY STAR® 5
- EPEAT® – Gold where HP registers commercial display products. See http://www.epeat.net for registration status in your country.
- IT ECO declaration
- TCO 5

Energy Consumption (in accordance with US Energy Star test method)

	115VAC, 60Hz	230VAC, 50Hz	100VAC, 60Hz
Normal Operation	26.7 W	26.5 W	26.7 W
Sleep	0.76 W	0.81 W	0.77 W
Off	0.72 W	0.76 W	0.72 W

Heat Dissipation*

	115VAC, 60Hz	230VAC, 50Hz	100VAC, 60Hz
Normal Operation	91 BTU/hr	91 BTU/hr	91 BTU/hr
Sleep	3 BTU/hr	3 BTU/hr	3 BTU/hr
Off	2 BTU/hr	3 BTU/hr	2 BTU/hr

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 where HP registers commercial display products. See http://www.epeat.net for registration status in your country
- Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.
- This product contains 14.7 % post-consumer recycled plastic (by wt.)
- This product is 98.6 % recycle-able when properly disposed of at end of life.

Technical Specifications - HP ZR22w 21.5-inch S-IPS LCD Monitor

Packaging Materials

External:	• Corrugated Carton	1200 g
	• CANON bags - several layers	12 g
Internal:	• EPS (Expanded Polystyrene)	380 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/ supplychain/gen_specifications.html):

- 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.

Technical Specifications - HP ZR22w 21.5-inch S-IPS LCD Monitor

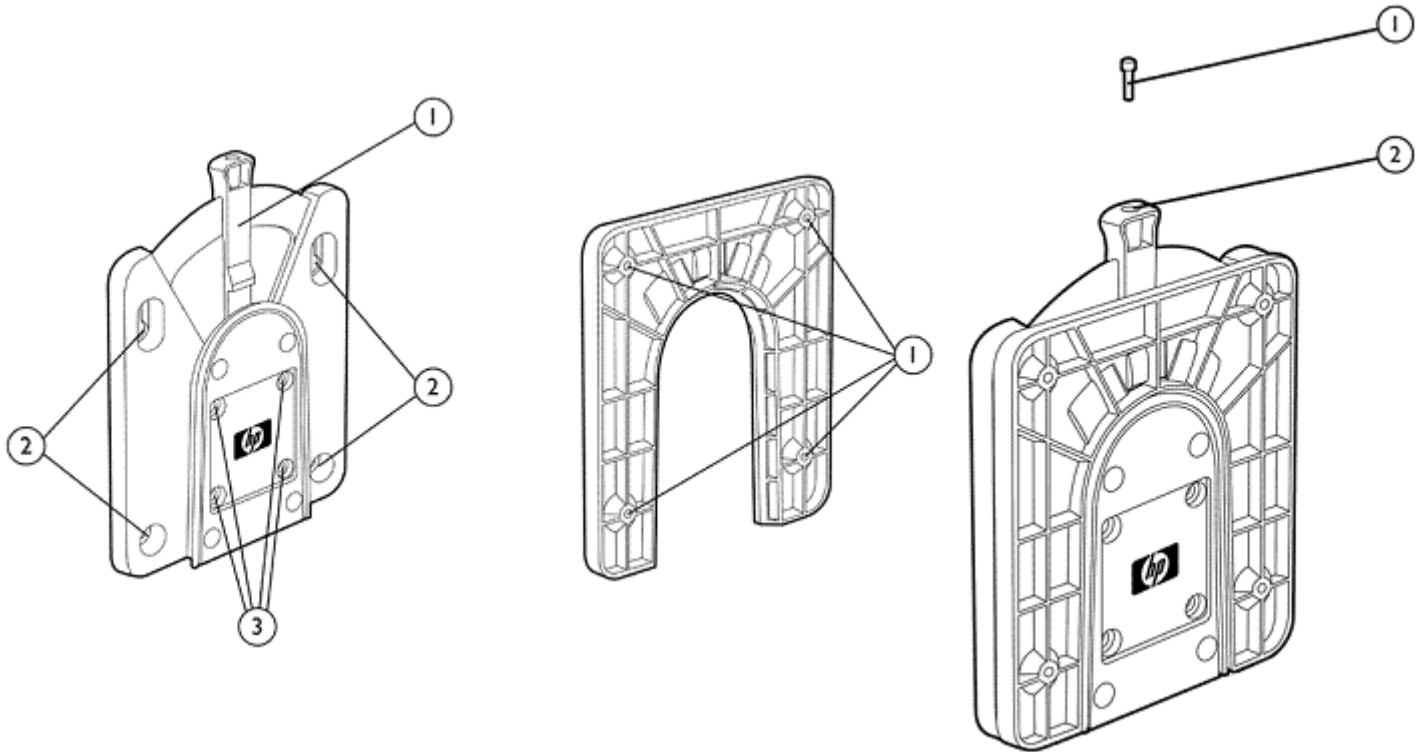|	
	• Design packaging materials for ease of disassembly. • Maximize the use of post-consumer recycled content materials in packaging materials. • Use readily recyclable packaging materials such as paper and corrugated materials. • Reduce size and weight of packages to improve transportation fuel efficiency. • 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
Energy Saving Features	• 85% power supply efficiency • Power Saving 2-lamp CCFL backlight • HP LiteSaver Software to enable user to schedule monitor power down on programmable schedule. • HP WattSaver technology that reduces standby power to less than 1 watt.
Options **HP Extended Height ZR22w Stand—Part number LV980AA**	ZR22w extended height stand (no display head) with HP Quick Release. Provides 23cm from desk to bottom of display head. This is 7.5cm higher than the stand. The ZR22w is also available as a head-only SKU (XU257A4).
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. For more information, refer to the product's QuickSpecs.
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.

Technical Specifications - HP ZR22w 21.5-inch S-IPS LCD Monitor

	HP Adjustable Dual Display Stand—Part number AW664AA	This stand provides you with a premium, space-saving dual-screen configuration, which reduces the need to toggle between applications and screens. You can adjust the height, share your view by rotating the stand 90° in each direction, and select from a portrait or landscape display.
	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.
Other	Accessories Included	VGA Cable, DVI cable, DisplayPort cable, USB cable, power cable (single unit)
	Software	HP Display Assistant is a software utility that enables theft deterrence and allows monitor adjustment, color calibration, and security/asset management using the Display Data Channel Command Interface (DDC/CI) protocol of the connected PC or workstation.
	User Guide Languages	English, B. Portuguese, French, LA Spanish, Korean, S. Chinese, T. Chinese, Bahasa, Japanese, Danish, Finnish, German, Norwegian, Spanish, Swedish, Greek, Polish, Russian, Slovenian, Turkish
	Warranty Languages	English, Canadian French, LA Spanish, Brazilian Portuguese, Danish, German, Castilian Spanish, French, Italian, Dutch, Norwegian, Finnish, Swedish, Bahasa Indonesian, Korean, T. Chinese, S. Chinese
	Color	All carbonite
	VESA External Mounting	Yes, standard 4 hole pattern, 100 mm
	Security Lock-Ready	Yes, one slot available
Certification and Compliance		TCO 5.0 Displays, ISO 9241-307 VDT Guidelines Approval, CISPR Requirements, VCCI Approvals, MIC (Korean) Requirements, CSA, Australian ACA Approval, "GS" Mark, TUV Approvals, CE Marking, FCC Approval, ENERGY STAR® qualified, Microsoft® Windows® Certification (Microsoft® Windows® 98, Microsoft Windows 2000, Microsoft Windows XP, Windows Vista® Premium, and Windows 7), EPEAT® Gold.
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 years parts, 3 years labor, and 3 years onsite service (3/3/3) standard limited warranty. Certain restrictions and exclusions apply.**
		**HP Care Pack Services extend service contracts beyond the standard warranties. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts from date of hardware purchase. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: http://www.hp.com/go/lookuptool. Additional HP Care Pack Services information by product is available at: http://www.hp.com/hps/carepack.

QuickSpecs

Overview - HP LCD Monitor Quick Release

HP LCD Monitor Quick Release

1. Release/locking
2. Four 100 mm VESA mount screw holes
3. Mounting holes for attachment to back of monitor stands

1. Four 100 mm VESA mount screw holes

1. Locking pin screw
2. Locking pin hole on release/locking arm

Introduction

The HP Quick Release, which ships standard with the HP ZR22w 21.5-inch Widescreen LCD Monitor, is an easy to use, 100 mm VESA-compliant, flat panel monitor mounting solution that allows you to quickly and securely attach a flat panel monitor to a variety of stands, brackets, arms or wall mounts. HP Quick Release can also be used for mounting any combination of devices that are compatible with the 100 mm VESA Flat Display Mounting Interface Standard. The failsafe "Sure-Lock" mechanism snaps the monitor (or mounted device) securely in place, and can be further secured with a theft-deterrent security screw.

Overview - HP LCD Monitor Quick Release

Uniquely flexible product configurations

HP Quick Release enables uniquely flexible product configuration alternatives in a variety of settings, such as:

- Storefronts/kiosks: Mount LCD monitors for easy viewing and add touchscreens for interactivity.
- Trade shows: Securely mount LCD TVs or monitors in common areas and quickly remove them for safekeeping at the end of the day.
- Front office environments: Minimize desk space requirements with wall or swing-arm mounting of monitors in reception areas.
- Training labs: Mount a monitor directly on a 100 mm VESA-compatible PC or an HP Thin Client for all-in-one convenience.
- Medical/institutional settings: Securely mount monitors in nursing stations and public areas.
- Conference rooms: Mount projectors (with 100 mm VESA-compliant pre-drilled holes) on ceilings, and monitors on walls or tables.

Technical Specifications - HP LCD Monitor Quick Release

Mechanical	Dimensions (H x W x D)	Packaged:	**19,8 x 15,9 x 3,8 cm** (7.8 x 6.25 x 1.5 in)
		Unpackaged:	**16 x 13,2 x 1,65 cm** (6.3 x 5.2 x 0.65 in)
	Weight	Packaged:	**0,49 kg** (1.1 lb)
		Unpackaged:	**0.37 kg** (0.82 lb)

Additional components   Eight 10 mm mounting screws (for attachment to VESA compliant monitor mounts)

Eight 15.5 mm mounting screws (for attachment to HP Thin Client products)

Four 20 mm mounting screws (for attachment to back of select HP flat panel monitor stands)

One Quick Release "locking" screw

Color   Carbonite

Notes:
1. No HP monitors allow positioning of a thin client product between a monitor screen and its stand.
2. The Quick Release device is not to be used between a monitor screen and its stand unless provided that way from the factory.
3. Under no circumstances is the Quick Release device intended to be used in an orientation where the Release/Lock lever is oriented downward.

Supported weight capacity The HP Quick Release has been designed to support a maximum of up to 10.9 kg (24 lbs) depending upon the mounting configuration used. Please note this is a total weight limit for all devices mounted, i.e. the combined weight of the monitor and a second device such as an HP Thin Client cannot exceed 24 pounds. 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.