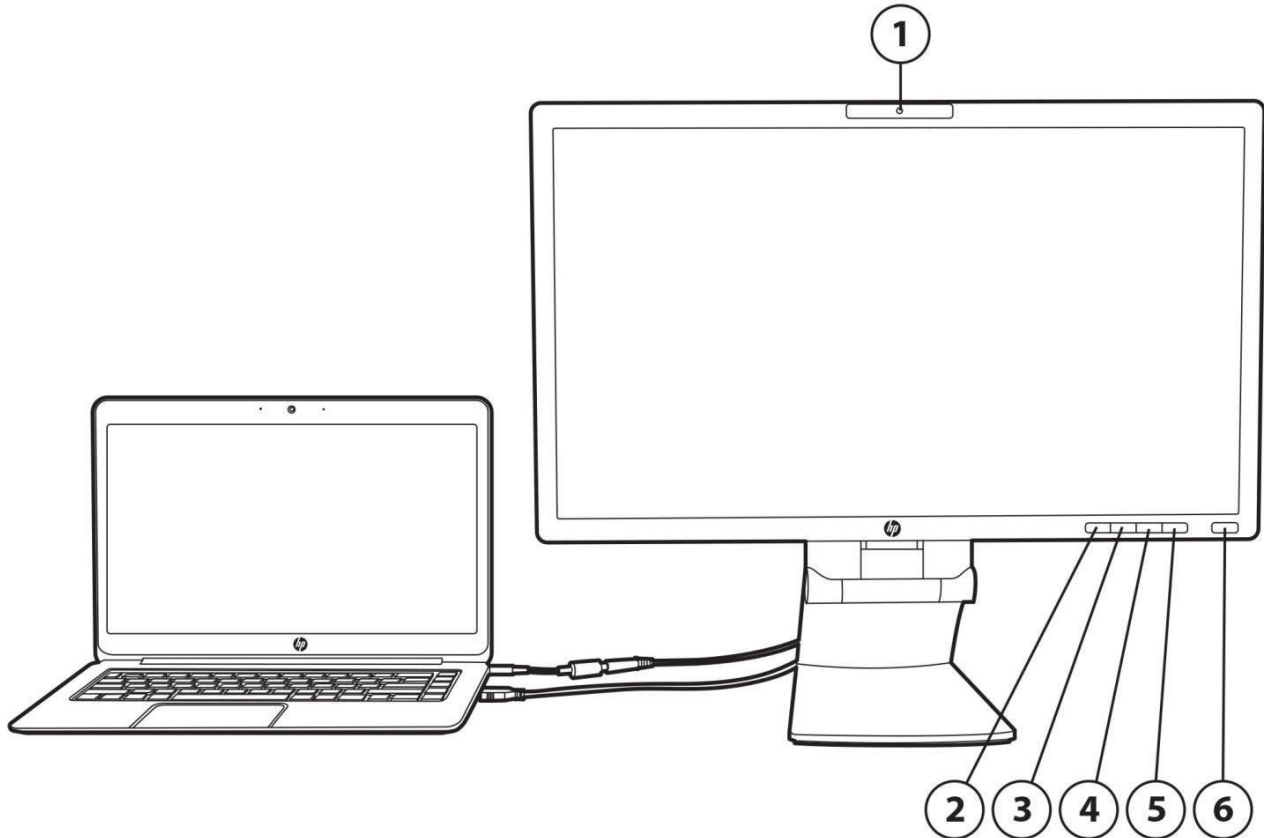


Overview

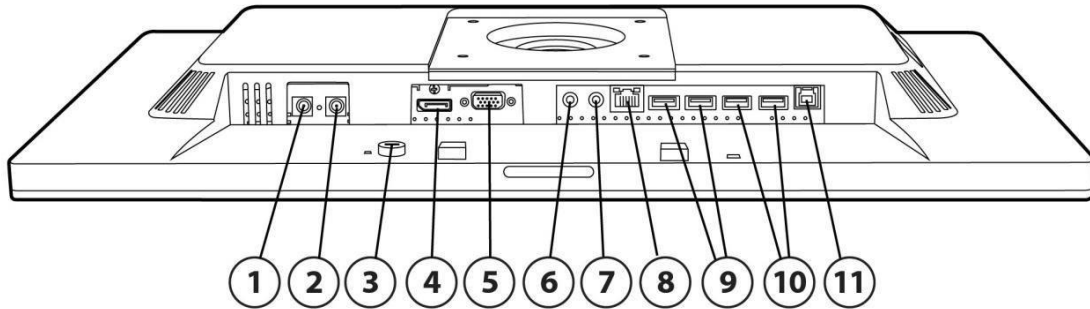
HP EliteDisplay S231d 23-in IPS LED BLU Notebook Docking Monitor



- | | | | |
|---|--|--------------------------------------|---|
| <p>1. Webcam and Microphones</p> | <p>720p HD Webcam, LED lights up when webcam is in use and dual microphones</p> | <p>5. OK/auto</p> | <p>If the OSD menu is on, press to select the highlighted menu item.</p> |
| <p>2. Menu</p> | <p>Opens, selects or exits the OSD menu.</p> | <p>6. Power and Power LED</p> | <p>If the OSD menu is inactive, press to activate the auto adjustment feature to optimize the screen image. The auto adjustment feature only functions if the active adjustment feature is VGA.</p> <p>Turns the monitor on or off. White = Fully powered.
Amber = Sleep mode.
Flashing Amber = Sleep Timer mode.</p> |
| <p>3. Minus</p> | <p>If the OSD menu is on, press to navigate backward through the OSD menu and decrease adjustment levels.</p> | | |
| <p>4. Plus/source</p> | <p>If the OSD menu is on, press to navigate forward through the OSD menu and increase adjustment levels.
If the OSD menu is inactive, press to activate the source button that chooses the video signal input (DisplayPort, USB or VGA).</p> | | |

Overview

NOTE: Shown with HP Business Notebook (notebooks sold separately).



- | | |
|-------------------|----------------------------|
| 1. DC Power in | 7. Audio in |
| 2. DC power out | 8. RJ-45 (network) jack |
| 3. Lock slot | 9. USB 2.0 downstream (2) |
| 4. DisplayPort | 10. USB 3.0 downstream (2) |
| 5. VGA connector | 11. USB 3.0 upstream |
| 6. Headphones out | |

Model

F3J72AA

Introduction

Create an instant workspace driven by a 23-inch diagonal IPS display with the HP EliteDisplay S231d 23-in IPS LED Backlit Notebook Docking Monitor. With one USB cable connection from your notebook to your display, you can immediately access the network, the display's integrated collaboration tools, and your peripherals, and get to work. Charge your HP Notebook battery and power your HP Notebook through the display's DC power cable.¹

Key Benefits

- Collapse a desk full of docking stations and power cables into one efficient hub with a display that delivers network connectivity, port replicator expansion for your peripherals, and HP Notebook charging.
- View all the stunning detail on a 23-inch diagonal display with 1920x1080 full HD resolution, wide viewing angle IPS, 250 cd/m² brightness, 1000:1 contrast ratio, 5M:1 dynamic contrast ratio, and 7 ms response time.
- Quickly connect and collaborate and optimize your virtual communication technologies with an integrated webcam, and dual microphones.
- Find your sweet spot with customizable tilt, height adjustment, swivel, and pivot settings—the most adjustability available on an HP business display

*Battery charging capability for HP Commercial Notebooks up to 90W, EliteBook Mobile Workstations will have pass through power capability only.

Technical Specifications

Panel	Type	IPS (In Plane Switching) LED Backlit LCD panel
	Viewable Image Area (diagonal)	58,42cm (23.0in.) widescreen; diagonally measured
	Panel Active Area (WxH)	50,9x28,64cm (20.03x11.27in.)
	AspectRatio	16:9
	Viewing Angle (typical)	Upto 178° horizontal / 178° vertical (10:1 minimum contrast ratio)
	Brightness (typical)*	250 nits (cd/m ²)
	Contrast Ratio (typical)*	1000:1
	Dynamic Contrast Ratio (typical)*	5,000,000:1
	Response Time (typical)*	7 ms (gray to gray)
	Pixel Pitch	0.265 mm
	Backlight Lamp Life (to half brightness)	30,000 hours
	Color Gamut (typical)	72%
	Color Support**	Can display up to 16.7 million colors
	OnScreenDisplay (OSD) Controls	*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.		
Buttons or Switches		Menu; Minus ("-"); Plus ("+") / Source; OK / Auto; Power
Languages		English, French, Spanish, Italian, German, Netherlands, Japanese, Traditional Chinese, Simplified Chinese, Brazilian Portuguese
User Controls		Brightness, Contrast, Color, Image Control, OSD Control, Management features, Language, Input Select, Information and Factory Reset.
Horizontal Frequency		24 to 80 kHz
Vertical Frequency		50 to 60 Hz
Native Resolution		1920x1080@60Hz
Preset VESA Graphic Modes (non-interlaced)		1920x1080@60Hz 1680x1050@60Hz 1600x900@60Hz 1440x900@60Hz 1280x1024@60Hz 1280x720@60Hz 1024x768@60Hz
Maximum Pixel Clock Speed		800x600@60Hz 720x400@70Hz 640x480@60Hz 170MHz
Signal Interface/ Performance		

Technical Specifications

	User Programmable Modes	Yes (10)	
	Anti-Glare	Yes	
	Default Color Temperature	Standard (6500K)	
Video/Other Inputs	Plug and Play	Yes	
	Input Connectors (Video)	(1) USB 3.0 upstream (interface to notebook); (1) VGA (analog); (1) DisplayPort 1.2	
	Sync Input	TTL separate synch	
	Video Cables*	(1) USB 3.0 included, (1) VGA cable, (1) DisplayPort cable *NOTE: Included cables may vary by region.	
	Video Cable Length	1.8m (5.9 ft.)	
	Audio	(1) Audio in; (1) Headphone/line out	
	USB	4 total USB ports: (2) USB 3.0 ports; (2) USB 2.0 downstream ports	
	Network	(1) RJ-45 Network in	
	Webcam	Built-in 720p HD Webcam w/ dual mic and LED	
Power	Type	External	
	Input Power	100–240VAC, 50–60Hz	
	Typical Power Consumption	38W	
	Maximum Power	60W	
	Power Saving	2.2W standby	
	Power Cable Length	(1.8m) 5.9 ft or (1.83m) 6 ft*, included *NOTE: Included cables may vary by region.	
	Notebook charging	Built-in HP Business Notebook charger with HP Smart ACT technology to power and charge HP notebooks (up to 90W)* *Pass through power only for HP Commercial Notebooks above 90W	
	Charging Power cable length	1.8m (5.9 ft.)	
Mechanical	Dimensions (WxDxH)	Unpacked w/stand	54,4x24,24x46,99cm (21.41x9.54x18.5in)
		Unpacked w/o stand (head only)	54,4x5,1x32,9cm. (21.41x2x12.95in.)
		Packaged	62x18,3x51,8cm. (24.41x7.2x20.39in.)
	Weight	Head Only	3,87kg (8.54lb.)
		Unpacked	6,12kg (13.5lb.)
		Packaged	8,66kg (19.1lb.)
	Tilt Range	-5° to +30°	

QuickSpecs

HP EliteDisplay S231d 23-in IPS LED BLU Notebook Docking Monitor

Swivel Range	Yes (360°)
Height Adjustable	Yes, 150mm
Pivot Rotation	Yes

Technical Specifications

	Base	Attached		
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 5000m. (16,404ft.)		
	Altitude—Non-operating	0 to 12192m. (40,000ft.)		
	White LED Backlights	Yes		
	CCFL Panel	No		
	Arsenic-Free Display Glass	Yes		
		Low Halogen³	Yes	
	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"> • ITECO declaration 		
	Energy Consumption (in accordance with US ENERGY STAR® test method)	115VAC, 60Hz	230VAC, 50Hz	100VAC, 60Hz
	Normal Operation	19.37W	19.52W	19.38W
	Sleep	1.72W	1.77W	1.72W
	Off	0.35W	0.37W	0.33W
	Heat Dissipation*	115VAC, 60Hz	230VAC, 50Hz	100VAC, 60Hz
	Normal Operation	66BTU/hr	67BTU/hr	66BTU/hr
	Sleep	6BTU/hr	6BTU/hr	6BTU/hr
	Off	1BTU/hr	1BTU/hr	1BTU/hr
	*Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.			
Additional Information	<input type="checkbox"/> This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2002/95/EC. <ul style="list-style-type: none"> • 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). 			

Technical Specifications

- Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO 1043.
- This product contains 13.9% post-consumer recycled plastic (by wt.)
- This product is 98.9% recycle-able when properly disposed of at end of life.

Packaging Materials

External:	PAPER/Cardboard & misc	430 g
Internal:	PLASTIC/EPS (Expanded Polystyrene)	372g
	PLASTIC/Polyethylene lowdensity	10g

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 (PBEBs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)

Technical Specifications

- 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.

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>

Hewlett-Packard Corporate Environmental Information

Enables connection of up to six simultaneous displays to help you boost productivity and multi-task across several open applications. Use one

Options

HP USB Graphics Adapter—Part number NL571AA

Technical Specifications

HP Dual Output USB Graphics Adapter —Part Number C5U89AA	Adapter to bridge between a notebook or desktop PC and second monitor or use multiple Adapters to connect several displays to each other. You can boost your productivity by creating a dual-monitor setup with the HP Dual Output USB Graphics Adapter—featuring both DVI-I and DisplayPort inputs to drive displays at high resolutions through a single USB 3.0 connection to your PC.						
HP LCD Monitor Quick Release—Part number EM870AA¹	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.						
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, 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 Adjustable Display Stand—Part number AW663AA HP Business Digital Headset —Part number QK550AA	A headset that is perfect for call centers, telephone-intensive jobs, or casual use while working at your desk. The over-the-head flexible design includes light padding, full size leather earphones and a mounted microphone boom.						
What's in the box?	<table border="0"> <tr> <td data-bbox="421 1398 667 1423">Monitor and Accessories</td> <td data-bbox="683 1398 1444 1499">HP EliteDisplay S231d 23-in IPS LED BLU Notebook Docking Monitor, External power supply (150W), USB cable, DC power cable, VGA cable, DisplayPort cable, DC jack dongle cable (DC 4.5mm adapter) and rubber ring, webcam rubber cover</td> </tr> <tr> <td data-bbox="370 1507 539 1533">Documentation</td> <td data-bbox="683 1507 1102 1533">CD (includes user guide, warranty, drivers)</td> </tr> <tr> <td data-bbox="370 1541 576 1566">Featured Software</td> <td data-bbox="683 1541 1501 1669">Hard copy warranty booklet (Country specific) 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.</td> </tr> </table>	Monitor and Accessories	HP EliteDisplay S231d 23-in IPS LED BLU Notebook Docking Monitor, External power supply (150W), USB cable, DC power cable, VGA cable, DisplayPort cable, DC jack dongle cable (DC 4.5mm adapter) and rubber ring, webcam rubber cover	Documentation	CD (includes user guide, warranty, drivers)	Featured Software	Hard copy warranty booklet (Country specific) 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.
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Technical Specifications

Other	<p>User Guide Languages English, Danish, Dutch, Finnish, French, German, Italian, Norwegian, Spanish (International), Swedish, Czech, Greek, Hungarian, Polish, Russian, Slovenian, Turkish, Arabic, Portuguese (Brazilian), Bahasa Indonesia, T. Chinese, S. Chinese, Japanese</p> <p>Warranty Languages English, German, French, Italian, Turkish, Greek, Arabic, Hungarian, Czech, Russian, Polish, Japanese, Dutch, Danish, Finnish, Portuguese, Norwegian, Swedish, T. Chinese, Korean, Slovenian, Bahasa, Spanish</p> <p>Color Black</p> <p>VESA External Mounting Yes (onesetofstandard4-holepattern,100mm).</p> <p>Security Lock-Ready Yes</p>
Certification and Compliance	<p>CB, CE, TUV-S, EAC, CUL, FCC, CSA, NOM, S-Mark, VCCI, PSB, ISC, CCC, BSMI, C-Tick, E-Standby, KC, CECP, CEL Grade 1, SmartWay Transport Partnership (NA only), Microsoft WHQL. Windows 8.1 Pro</p>
Operating System Support	<p>(32-bit or 64-bit)* Windows 8.1 (32-bit or 64-bit)* Windows 8 Pro (32-bit or 64-bit)* Windows 8 (32-bit or 64-bit)* Windows 7 Ultimate (32-bit or 64-bit)** Windows 7 Professional (32-bit or 64-bit)** Windows Vista with Service Pack 1 or 2 (32-bit or 64-bit)</p> <p>*Not all features are available in all editions of Windows 8 and 8.1. Systems may require upgraded and/or separately purchased hardware, drivers and/or software to take full advantage of Windows 8.1 functionality. See http://www.microsoft.com.</p> <p>**Not all features are available in all editions of Windows 7. This system may require upgraded and/or separately purchased hardware to take full advantage of Windows 7 functionality. See http://www.microsoft.com/windows/windows-7/ for details.</p>
Compatibility – USB	Compatible with notebook platforms configured with either USB 2.0 or USB 3.0 ports
Compatibility – Power Charging	Compatible with any HP Commercial Notebook configured with Smart AC 3-Pin connector ⁴
Service and Warranty	Protected by HP, including a 3 year standard limited warranty. Optional Care Pack Services are extended service contracts which go beyond your standard warranties. ²

1. 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.
2. 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>.
3. External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.
4. HP Smart AC Technology will charge HP notebooks up to 90W and only allow power pass through for HP Notebooks above 90W.

Technical Specifications

5. 17 to 24-inch diagonal monitors need to meet supported weight limits of 6 to 12.1 lbs. (2.7 to 5.5 kg).
6. The Integrated Work Center Stand has been designed to support 17 to 24-inch diagonal HPLCD monitors from 2.3 kg to 5.2 kg (5.07 lbs to 11.24 lbs).

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All specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary, either higher or lower. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

ENERGY STAR® is a US registered mark of the United States Environmental Protection Agency.

Technical Specifications

Date of change:	Version History:		Description of change:
March 3, 2016	From v1 to v2	Added	DC 4.5mm adapter to Monitor and Accessories.
May 20, 2016	From v2 to v3	Update	Removed EPEAT and ENERGY STAR references
June 06, 2016	From v3 to v4	update	Removed TCO references