

Technical Specifications

HP P24h G5 FHD Monitor

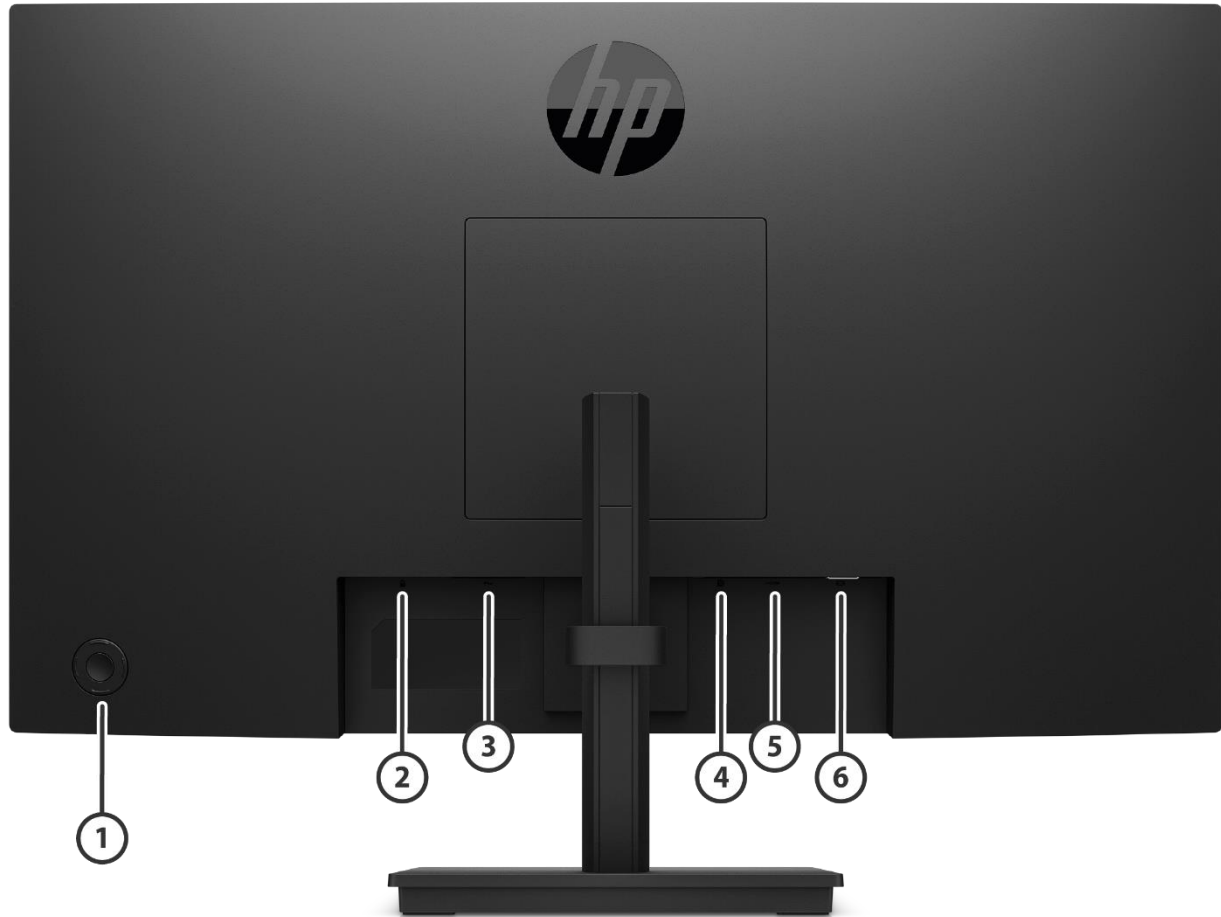


1. Power Button

Front
2. LED Power

Technical Specifications

HP P24h G5 FHD Monitor



1. Joypad OSD button
2. Security Cable Slot
3. Power Connector

Back

4. DisplayPort™ 1.2
5. HDMI 1.4 Port
6. VGA Port

Technical Specifications


Model: 64W34AA

Panel Specifications	Display Size (Diagonal)	23.8 inch
	Panel Technology	IPS
		75 Hz
	Max Refresh Rate	NOTE: 75Hz refresh rate can be supported via HDMI and DP cable connection only. 60 Hz refresh rate with VGA.
	Native Resolution	FHD (1920 x 1080)
	Panel Bit Depth	8 bit (6 bit + FRC)
	Aspect Ratio	16:9
	Brightness (Typical)	250nits
	Contrast Ratio (Static)	1000:1
	Dynamic Contrast Ratio	8M:1
	Flicker Free	Yes
	Pixel Pitch	0.27 mm x 0.27 mm
	Pixels Per Inch (PPI)	93 PPI
	Display Colors	Up to 16.7 million colors supported
	Backlight Lamp Life Minimum (To Half Brightness - In Hours)	30k
	Backlight Type	Edge-lit
	Screen Treatment	Anti-glare
	Hardness	3H
	Haze	25%
	Response Time (Typical)	5ms GtG (with overdrive)
	Horizontal Viewing Angle (Typical Cr>10)	178°
	Vertical Viewing Angle (Typical Cr>10)	178°
	Panel Active Area Metric (W x H)	52.70 x 29.65 cm
Panel Active Area Imperial (W x H)	20.75x 11.67 in	
NOTE: Performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.		
Color	NTSC	72%
Color Management	Color Space/ Subsampling Support	RGB 4:4:4, YCBCR 4:4:4, YCBCR 4:2:2
	RGB Channel Adjust	Yes, Gain
	Default Color Temperature	Standard (6500K)
	Factory Color Calibrated	Yes (Color Temperature)
	Factory Color Presets	Warm - 5000K, Neutral - 6500K, Cool - 9300K
Monitor Specifications	Bezel Type	3-sided borderless
	Color Of Stand	Black
	Color Of Head	Black
	Tilt	-5 to +23°
	Height Adjust Range	100 mm
	Vesa Mounting	100 mm x 100 mm
	Security Lock	Standard Security Lock Slot

Technical Specifications

<p>Detachable Stand</p> <p>Warranty</p> <p>Low Blue Light</p> <p>Speaker Output Power</p> <p>Management Software</p>	<p>Yes</p> <p>3/3/0 for LA, NA, EMEA, APJ (3/3/3 in select APJ Countries)</p> <p>Yes (TÜV certified)</p> <p>2 x 2 W</p> <p>HP Client Management Script Library (CMSL)* HP Display Center**</p> <p><i>* The Client Management Script Library must be downloaded to the connected PC to run CMSL commands. Some limitations may apply to legacy displays. Visit support.hp.com to download HP CMSL.</i></p> <p><i>**Host PC requires Windows 10 and above. HP Display Center is available on the Microsoft store.</i></p>	
<p>On Screen Display (OSD)</p>	<p>On Screen Display</p> <p>Native Resolution</p> <p>Maximum Resolution</p> <p>Preset Graphic Modes/Supported Resolutions</p> <p>Minimum Vertical Scan Rate</p> <p>Maximum Vertical Scan Rate</p> <p>Minimum Horizontal Scan Rate</p> <p>Maximum Horizontal Scan Rate</p> <p>Maximum Pixel Clock</p> <p>User Programmable Modes</p> <p>User-Assignable Function Buttons</p> <p>Audio</p> <p>Languages</p>	<p>Brightness+, Color, Image, Input, Power, Menu, Management, Information, Exit</p> <p>FHD (1920 x 1080)</p> <p>NOTE: DisplayPort 1.2 & HDMI 1.4 required to drive panel at its native resolution.</p> <p>The video card of the connected PC must be capable of supporting 1920x1080 at 60 Hz with 8-bit color using one HDMI or VGA.</p> <p>1920 x 1080 (FHD)</p> <p>720 x 400 @ 70Hz</p> <p>640 x 480 @ 60Hz</p> <p>640 x 480 @ 75Hz (Digital port only)</p> <p>800 x 600 @ 60Hz</p> <p>800 x 600 @ 75Hz (Digital port only)</p> <p>1024 x 768 @ 60Hz</p> <p>1024 x 768 @ 75Hz (Digital port only)</p> <p>1280 x 720 @ 60 Hz</p> <p>1280 x 800 @ 60 Hz</p> <p>1280 x 1024 @ 60 Hz</p> <p>1280 x 1024 @ 75Hz (Digital port only)</p> <p>1440 x 900 @ 60 Hz</p> <p>1600 x 900 @ 60 Hz</p> <p>1680 x 1050 @ 60 Hz</p> <p>1920 x 1080 @ 60 Hz</p> <p>1920 x 1080 @ 75 Hz</p> <p>48 Hz</p> <p>75Hz</p> <p>30 KHz</p> <p>86 KHz</p> <p>180.0 MHz</p> <p>Yes,10</p> <p>Yes, 4 (7 options)</p> <p>Built-in speakers</p> <p>11 (English, French, German, Italian, Dutch, Spanish, Japanese, Portuguese, Russian, Traditional Chinese, and Simplified Chinese)</p>

Technical Specifications

Connector Types	DisplayPort™	1 DisplayPort™ 1.2
	HDMI	1 HDMI 1.4
	HDCP	Yes, DisplayPort and HDMI
	VGA	1 VGA
Special Features	SWITCH	Monitor Power button Next Active Input / Up button Brightness / Down button Information / Left button Color / Right button Menu / Enter button 11 (VGA)/ 16 (HDMI and DP)
	User Presets	
Power & Operating Specs	Power Supply	Internal
	Power Source	100 – 240 VAC 50/60 Hz
	Power Consumption- Max	28W
	Energy Saving/Stand By Mode Power Consumption - Typical	18W
Energy Star Data	Operational Mode at 100 VAC	14W
	Operational Mode at 115 VAC	14W
	Operational Mode at 230 VAC	14W
EU Energy Efficiency Class (ErP LOT-5)	On-mode Power Consumption for Standard Dynamic Range (SDR)	15W
	ErP LOT5 Energy Efficiency Class for Standard Dynamic Range (SDR)	
Operating Conditions	Operating Temperature - Celsius	5° – 35°C
	Operating Temperature - Fahrenheit	41° – 95°F
	Non-Operating Temperature - Celsius	-40° – 65°C
	Non-Operating Temperature - Fahrenheit	-40° – 149°F
	Operating Humidity	20 – 80% Relative Humidity (non-condensing)
	Non-Operating Humidity	5 – 95%
Certifications and Compliances	Operating Altitude	0 – 5,000 m (16,400 ft.)
	Non-operating Altitude	0 – 12,192 m (40,000 ft.)
	Mercury-free LED display backlighting	Yes, Mercury-free LED backlighting
	Low Halogen	Yes*
	Agency Approvals and Certifications	<p>*External power supplies, WWAN modules, power cords, cables and peripherals excluded.</p> <p>WW application CE/CB/EUP Lot 6 and Lot 26/Erp/RoHS/TUV-Bauart/CTUVus/FCC/ICES/CEC/Energy Star/TCO/TCO Edge /China CCC/CEL/CECP/SEPA/Korea KC/Korea KCC/Korea e-Standby/VCCI/PSE/RCM/Australia MEPS/India BIS/Taiwan BSMI/Mexico NOM/Mexico</p>

Technical Specifications

Microsoft WHQL Certification
ENERGY STAR® Certified
EPEAT® Registered
Regions need to verify by country

energy/South Africa NRCS LoA and energy/Argentina S-Mark/Singapore PSB/Cambodia ISC/EAC/EAEU
 RoHS/UAE/UAE RoHS/ ISO 9241-307/Low blue light/
 Flicker Free/Vietnam MEPS/Ukraine Energy/ Ukraine CoC
 Win 11, Win 10, Win 8, Win 7
 Yes

EPEAT® registered*

*Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit <http://www.epeat.net> for more information.

China Energy Label

CEL Grade 2

*Monitors produced from June 2024 comply with China regulation GB 21520-2023.

TCO Certified Edge
TCO Certified
SmartWay Transport Partnership - NA only

Yes

Yes

Yes (NA sku)

Contains Recycled Plastics

Contains Recycled Plastics

85% ITE-derived closed loop plastic*

*Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard.

Recyclable Packaging (Box, packing materials)

Molded Paper Pulp Cushion inside box is 100% sustainably sourced and recyclable*

*100% outer box packaging and corrugated cushions made from sustainably sourced certified and recycled fibers.

Unit Product/Package Specifications

Product Dimensions
 (Unpacked with stand) (W x D x H)
Product Dimensions
 (Packed) (W x D x H)
Display Head Dimensions
 (Unpacked without stand) (W x D x H)
Base Area Footprint
 (w x d mm)
Bezel Measurements
 (Unpacked with stand) (W x D x H)
Product Weight
 (Unpacked with stand)
Product Weight
 (Packed)
Product Weight
 (Head Only)

Metric	Imperial
53.89 x 19.64 x 46.92 cm	21.22 x 7.73 x 18.47 in
59.5x12.4x 39.1 cm	23.43 x 4.88 x 15.39 in
53.89 x 5.15 x 32.36 cm	21.22 x 2.03 x 12.74 in
178 x 185 mm	7.01 x 7.28 in
Bottom: 20.2 mm	Bottom: 0.8 in
4.60 kg	10.14 lb
6.74 kg	14.86 lb
3.38 kg	7.45 lb

Pallet Information

Pallet Dimensions
 (L x W x H mm)

Slip Sheet:
 1200 x 1000 x 2364 mm (40 ft HQ)
 Slip Sheet:
 47.24 x 39.37 x 93.07 inch (40 ft HQ)

Technical Specifications

	Pallet:	Pallet:
	1200 x 1000 x 2492 mm (40 ft HQ)	47.24 x 39.37 x 97.9 inch (40 ft HQ)
	Slip Sheet:	Slip Sheet:
	1200 x 1000 x 1967 mm (20 & 40 ft)	47.03 x 39.37 x 77.3 inch (20 & 40 ft)
	Pallet:	Pallet:
	1200 x 1000 x 2092 mm (20 & 40 ft)	47.24 x 39.37 x 82.22 inch (20 & 40 ft)
Pallet Total Weight	Slip Sheet:	Slip Sheet:
	650 kg (40 ft HQ)	1433.01 lb (40 ft HQ)
	Pallet:	Pallet:
	670kg (40 ft HQ)	1477.1 lb (40 ft HQ)
	Slip Sheet:	Slip Sheet:
	545kg (20 & 40 ft)	1201.52 lb (20 & 40 ft)
	Pallet:	Pallet:
	565kg (20 & 40 ft)	1245.62 lb (20 & 40 ft)
Pallet Layers	6 per layer and 6 per layer (slip sheet & pallet) for HC	
Pallet Product per Layer	5 per layer and 5 per layer (slip sheet & pallet) for SC	
Total Products per Pallet	16 layers per pallet	
Container Load, 20-Foot	96 sets and 80 sets (slip sheet & pallet)	
Container Load, 40-Foot	800 sets and 800 sets (slip sheet and pallet)	
Container Load, 40-Foot HighQ	1680 sets and 1680 sets (slip sheet and pallet)	
	2016 sets and 2016 sets (slip sheet and pallet)	
What's in the box?	AC power cord (1.83m) 6 ft	
	VGA cable (1.8m) 5.9 ft (Japan Only)	
	DP cable (1.8m) 5.9 ft (Japan, EMEA AF SKUs, and NA only)	
	HDMI cable (1.8m) 5.9 ft	
	Quick Setup Poster	
	Doc kit	
	Warranty card	
User Guide and Warranty Languages	User Guide Languages	Arabic, Bahasa Indonesia, Bulgarian, Chinese-S, Chinese-T, Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Greek, Hebrew, Hungarian, Italian, Japanese, Kazakh, Korean, Latvian, Lithuanian, Norwegian, Polish, Portuguese (Brazilian), Portuguese (Iberian), Romanian, Russian, Serbian, Slovak, Slovenian, Spanish, Swedish, Thai, Turkey, Ukrainian
	Warranty Languages	English US (EN), English AP (EN-AP), English LA (EN-LA), English UK (EN-GB), Arabic (AR) -17x, Bahasa Indonesia (ID), Bosnian (BS), Bulgarian (BG), Chinese-S (CN), Chinese-T (TW), Croatian (HR), Czech (CS), Danish (DA), Dutch (NL), Estonian (ET), Finnish (FI), French Canadian (FC), French European (FR), German (DE), Greek (EL), Hebrew (HE), Hungarian (HU), Italian (IT), Japanese (JA), Kazakh (KK), Korean (KO), Latvian (LV), Lithuanian (LT), Norwegian (NO), Polish (PL), Portuguese, Brazilian (BR), Portuguese, Iberian (PT), Romanian (RO), Russian (RU),

Technical Specifications

Serbian (SR), Slovak (SK), Slovenian (SL), Spanish, Castilian (ES-ES), Spanish, Latin America (ES-MX), Swedish (SV), Thai (TH), Turkish (TR), Ukrainian (UK), Vietnamese (VI)

Technical Specifications

ENVIRONMENTAL DATA

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® • US Federal Energy Management Program (FEMP) • EPEAT^a Gold registered in the United States. See http://www.epeat.net for registration status in your country. • TCO Certified • China Energy Conservation Program (CECP) • China State Environmental Protection Administration (SEPA) • Taiwan Green Mark • Korea Eco-label • Japan PC Green label* 		
Sustainable Impact Specifications	<ul style="list-style-type: none"> • 85% ITE – derived closed loop plastic • Low halogen • Outside Box and corrugated cushions are 100% sustainably sourced and recyclable • Molded Paper Pulp Cushion inside box is 100% sustainably sourced and recyclable • Recycled Plastic cushions 		
System Configuration	<p>The configuration used for the Energy Consumption and Declared Noise Emissions data for the Notebook model is based on a “Typically Configured Notebook”.</p>		
Energy Consumption (in accordance with US ENERGY STAR® test method)	115VAC, 60Hz	230VAC, 50Hz	100VAC, 50Hz
Normal Operation (Short idle)	13.25 W	13.22 W	13.31 W
Normal Operation (Long idle)	13.25 W	13.22 W	13.31 W
Sleep	0.17 W	0.2 W	0.18 W
Off	0.13 W	0.16 W	0.13 W
	<p>NOTE: Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.</p>		
Heat Dissipation*	115VAC, 60Hz	230VAC, 50Hz	100VAC, 50Hz
Normal Operation (Short idle)	45.3 BTU/hr	45.2 BTU/hr	45.5 BTU/hr
Normal Operation (Long idle)	45.3 BTU/hr	45.2 BTU/hr	45.5 BTU/hr
Sleep	0.6 BTU/hr	0.7 BTU/hr	0.6 BTU/hr
Off	0.4 BTU/hr	0.5 BTU/hr	0.4 BTU/hr
	<p>*NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.</p>		

Technical Specifications

Longevity and Upgrading	This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the		
	Spare parts are available throughout the warranty period and or for up to “5” years after the end of production.		
Additional Information	<ul style="list-style-type: none"> • This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2011/65/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 ISO11469 and ISO1043. • This product is 96.6% recycle-able when properly disposed of at end of life. 		
Packaging Materials	External:	PAPER/Corrugated	563 g
		PAPER/Molded Pulp	976 g
	Internal:	PLASTIC/EPE (Expanded Polyethylene)	28 g
		PLASTIC/Polyethylene low density	2 g
	The plastic packaging material contains at least 0.0% recycled content.		
	The corrugated paper packaging materials contains at least 90% recycled content.		
RoHS Compliance	<p>HP Inc. complies fully with materials regulations. We were among the first companies to extend the restrictions in the European Union (EU) Restriction of Hazardous Substances (RoHS) Directive to our products worldwide through the HP GSE. HP has contributed to the development of related legislation in Europe, as well as China, India, and Vietnam.</p> <p>We believe the RoHS directive and similar laws play an important role in promoting industry-wide elimination of substances of concern. We have supported the inclusion of additional substances—including PVC, BFRs, and certain phthalates—in future RoHS legislation that pertains to electrical and electronics products.</p> <p>We met our voluntary objective to achieve worldwide compliance with the new EU RoHS requirements for virtually all relevant products by July 2013, and we will continue to extend the scope of the commitment to include further restricted substances as regulations continue to evolve.</p> <p>To obtain a copy of the HP RoHS Compliance Statement, see HP RoHS position statement.</p>		
Material Usage	<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/supplychain/gen_specifications.html):</p> <ul style="list-style-type: none"> • Asbestos • Certain Azo Colorants 		

Technical Specifications

	<ul style="list-style-type: none"> • Certain Brominated Flame Retardants – may not be used as flame retardants in plastics • Cadmium • Chlorinated Hydrocarbons • Chlorinated Paraffins • Bis(2-Ethylhexyl) phthalate (DEHP) • Benzyl butyl phthalate (BBP) • Dibutyl phthalate (DBP) • Diisobutyl phthalate (DIBP) • 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 Usage</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>HP 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:</p>

Technical Specifications

	<p>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>
<p>HP, Inc. Corporate Environmental Information</p>	<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://www8.hp.com/us/en/hp-information/environment/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>
<p>footnotes</p>	<ul style="list-style-type: none"> • Percentage of ocean-bound plastic contained in each component varies by product • Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard. • External power supplies, WWAN modules, power cords, cables and peripherals excluded. • 100% outer box packaging and corrugated cushions made from sustainably sourced certified and recycled fibers. • Fiber cushions made from 100% recycled wood fiber and organic materials. • Plastic cushions are made from >90% recycled plastic.

Technical Specifications

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Summary

Change Log

Change Log			
July 28, 2022	V1 to V2	Updated	Contains Recycled Plastics
February 21, 2023	V2 to V3	Updated	Pallet Information
March 6, 2023	V3 to V4	Added	Mercury-free LED display backlighting
April 12, 2023	V4 to V5	Updated	Color Management section
October 24, 2023	V5 to V6	Updated	What's in the box? Section
February 1, 2024	V6 to V7	Added	Panel Specifications Section
April 3, 2024	V7 to V8	Added	CEL grade changed to 2 and footnote added
December 17, 2024	V8 to V9	Updated	HP Client Management Script Library (CMSL) Footnote