#### Overview

QuickSpecs

### **HP Chromebook 11MK G9 Education Edition**



#### Left

- 1. Webcam LED
- 2. Webcam
- 3. Internal Microphone

- 4. Touchpad
- 5. Nano Lock Slot (Lock sold separately)

#### Overview



#### Right

4.

- **1.** USB Type-C<sup>®</sup> (Power Delivery, Display Port<sup>™</sup> 1.4, data) **3.**
- 2. USB Type-A

- MicroSD<sup>TM</sup> Memory Card Reader (optional)
- Stereo Headphone / Microphone Combo Jack

#### **Overview**

- <19mm thin and rugged design for durability
- Enjoy affordable, convenient mobile productivity with MediaTek processor
- Undergoes MIL-STD810H tests<sup>1</sup>
- 1 USB Type-C® port (Power Delivery, Display Port<sup>™</sup> 1.4, data)
- Choice of up to 8 GB memory and 64 GB eMMc storage
- Spill and pick resistant keyboard with Full Skirted anchored key
- Spend less time charging with HP Fast Charge technology
- 180-degree hinge and optional HD IPS anti-glare touchscreen for collaboration
- Enjoy Android<sup>™</sup> Apps on Chrome OS<sup>™</sup>
- Your Chromebook boots up within 10 seconds and you can be browsing online and working in Google Apps just moments later
- Qualcomm® 2x2 AC WLAN with MU-MIMO and HP Extended Range Wireless LAN for stable connection in dense environment
- Keyboard that can be repeatedly wiped down with common household cleaning wipes.
- Easy for small hands to grip and handle with Unique textured surface

1. MIL-STD 810H is not intended to demonstrate fitness of U.S. Department of Defense contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions. Accidental damage requires an optional HP Accidental Damage Protection Care Pack.

NOTE: See important legal disclosures for all listed specs in their respective features sections.

### **PRODUCT NAME**

HP Chromebook 11MK G9 Education Edition

#### **OPERATING SYSTEM**

**Preinstalled** Chrome OS<sup>™</sup>

#### PROCESSORS

MediaTek MT8183 (2.0 GHz base frequency, 1 MB cache, 8 cores)<sup>1,2</sup>

#### **Processor Family**

Mediatek Processor

 Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload ar your hardware and software configurations. MediaTek's numbering is not a measurement of clock speed..
 Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.

#### CHIPSET

Chipset is integrated with processor

#### GRAPHICS

Integrated ARM<sup>®</sup> Mali<sup>TM</sup>-G72 MP3 Graphics<sup>3</sup>

3. HD content required to view HD images.

#### DISPLAY

#### **Technical Specifications**

#### Non-Touch

29.46 cm (11.6") diagonal HD SVA anti-glare WLED-backlit, 220 nits, 45% NTSC (1366 x 768) <sup>4,5</sup> 29.46 cm (11.6") diagonal HD IPS anti-glare WLED-backlit, 220 nits, 50% NTSC (1366 x 768) <sup>4,5</sup> **Touch** 29.46 cm (11.6") diagonal HD IPS anti-glare WLED-backlit touch screen, 220 nits, 50% NTSC (1366 x 768) <sup>4,5,6</sup>

4. Resolutions are dependent upon monitor capability, and resolution and color depth settings.

5. Sold separately or as an optional feature.

6. Actual brightness will be lower with touchscreen or Sure View.

#### STORAGE AND DRIVES

Primary Storage

32 GB eMMC 5.0<sup>7</sup> 64 GB eMMC 5.0<sup>7</sup>

7. For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 9 GB is not user available.

#### MEMORY

Maximum Memory 8 GB LPDDR4X-4266 SDRAM <sup>8</sup> Memory 8 GB LPDDR4X-4266 SDRAM<sup>8</sup> 8 GB LPDDR4X-4266 SDRAM<sup>8</sup>

Memory Slots Memory soldered on board

8. All slots are non-accessible / non-upgradeable.

#### **NETWORKING/COMMUNICATIONS**

#### **Technical Specifications**

#### WLAN

Qualcomm<sup>®</sup> Atheros 802.11b/g/n/a/ac (2x2) and Bluetooth<sup>®</sup> 4.2 combo <sup>9</sup>

MU-MIMO supported HP Extended Range Wireless LAN supported

Chromecast Chromecast Support

9. Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. Wi 5 (802.11 ac) is backwards compatible with prior 802.11 specs.

#### AUDIO/MULTIMEDIA

Audio HD audio Dual 2W stereo speakers Integrated single microphone

**Camera** 720p HD camera<sup>10</sup>

10. HD content required to view HD images.

### **KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS**

#### Keyboard

Full-size island-style Chrome keyboard, spill resistant with HP Full-Skirted Anchored Key

#### **Pointing Device**

Touchpad with multi-touch gesture support Taps enabled as default

#### SOFTWARE AND SECURITY

Preinstalled Software

HP Classroom Manager <sup>11</sup>

Manageability Features Chrome Education Upgrade <sup>12,13</sup>

#### Security Management

Titan C security chip Nano lock slot (Lock sold separately)

11. HP Classroom Manager is sold separately. Control and device locking from the teacher's desktop requires purchase of HP Classroom Manager.

12. Sold separately.

13. Chrome Education Upgrade requires one-time setup, subscription, Google Admin Console, and your organization's domain. Please see https://support.google.com/a/answer/60216.

#### POWER

**Power Supply** HP Smart 45 W USB Type-C adapter

**Primary Battery** HP Long Life 2-cell, 47 Wh Li-ion polymer<sup>14</sup> HP Fast Charge Technology (90% in 90 minutes)<sup>15</sup>

**Battery life** Up to 16 hours<sup>16</sup>

**Power Cord** 3-wire plug - 1m

14. Actual battery Watt-hours (Wh) will vary from design capacity. Battery capacity will naturally decrease with shelf life, time, usage, environment, temperature, system configuration, loaded apps, features, power management settings and other factors. 15. Recharges up to 90% within 90 minutes when the system is off or in standby mode when used with the power adapter provi with the notebook. After charging has reached 90% capacity, charging speed will return to normal. Charging time may vary +/-10 due to System tolerance.

16. Testing conducted by HP using Google Chrome OS power\_LoadTest. Battery life will vary and the maximum capacity of the battery will naturally decrease with time and usage. See <a href="http://www.chromium.org/chromium-os/testing/power-testing">http://www.chromium.org/chromium-os/testing/power-testing</a> for test details. Full charge battery life will decrease after Adaptive Battery Optimizer activation.

### **WEIGHTS & DIMENSIONs**

#### Technical Specifications

**Product Weight** Starting at 2.95 lb <sup>17</sup> Starting at 1.34 kg <sup>17</sup>

**Product Dimensions (w x d x h)** 11.61 x 8.08 x 0.74 in 29.5 x 20.53 x 1.88 cm

17. Weight will vary by configuration.

#### PORTS/SLOTS

1 USB Type-C $^{\circ}$  (Power Delivery, Display Port<sup>TM</sup> 1.4, data)

1 USB Type-A

1 Stereo headphone/microphone combo jack

#### **Expansion Slots**

1 Micro SD multi-format digital media reader (optional) Supports SD, SDHC, SDXC

#### SERVICE AND SUPPORT

1-year warranty and 90 day software limited warranty options depending on country. Batteries have a default one year limited warranty. Refer to http://www.hp.com/support/batterywarranty/ for additional battery information. On-site service and extended coverage is also available. HP Care Pack Services are optional extended service contracts that go beyond the standard limited warranties. 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/cpc.<sup>18</sup>

18. HP Care Packs are sold separately. 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 http://www.hp.com/go/cpc. HP services are governed by the applicable HP terms and conditions of service provided or indicate to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and suc 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.

#### SYSTEM UNIT

Stand-Alone Power Requirements (AC Power)	USB-C 45W adapter
Nominal Operating Voltage	15V
Average Operating Power	<45W
Integrated graphics	Yes
Discrete Graphics	N/A
Max Operating Power	UMA < 45W
Temperature	
Operating	32° to 95° F (0° to 35° C)
Non-operating	41° to 95° F (5° to 35° C)
Relative Humidity	
Operating	10% to 90%
Non-operating <b>Shock</b>	5% to 95%
Operating	40 G, 2 ms, half-sine
Non-operating	240 G, 2 ms, half-sine
Random Vibration	
Operating	1.043 grms
Non-operating Altitude (unpressurized)	3.5 grms
Operating	-50 to 10,000 ft (-15.24 to 3,048 m)
Non-operating	-50 to 40,000 ft (-15.24 to 12,192 m)
Planned Industry Standard Certifications	
UL	Yes
CSA	No
FCC Compliance	Yes
ENERGY STAR <sup>®</sup>	Yes <sup>19</sup>
EPEAT	EPEAT 2019 Silver in United States <sup>20</sup>
ICES	Yes
Australia /	Yes
NZ A-Tick Compliance	Yes
CCC	No
Japan VCCI Compliance	Yes
КС	Yes
BSMI	Yes
CE Marking Compliance	Yes
BNCI or BELUS	No
CIT	No
GOST	Yes
Saudi Arabian Compliance (ICCP)	Yes
SABS	Yes
UKRSERTCOMPUTER	No

19.Configurations of the HP Chromebook 11MK G9 EE that are ENERGY STAR® certified are identified as HP Chromebook x 11MK G9 EE ENERGY STAR on HP websites and on http://www.energystar.gov.

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

### DISPLAYS

1. Actual brightness will be lower with touchscreen or sure view. Note: all specifications represent the typical specifications provided by hp's component manufacturers; actual performance may vary either higher or lower.

11.6 inch HD (1366x768) Anti-	Outline Dimensions (W x H x D)	268.5 x 168.54 (mm) max.
Glare WLED SVA 45percent cg	Active Area	256.125 x 144.0 (mm)
220nits eDP slim	Weight	210g max.
	Diagonal Size	11.6 inch
	Thickness	3.0 (mm) max
	Interface	eDP 1.2
	Surface Treatment	Anti-glare (AG)
	Touch Enabled	No
	Contrast Ratio	400:1 (typ) - AG
	Refresh Rate	60Hz
	Brightness	220 nit typical (Panel Only)
	Pixel Resolution	1366x768 (HD)
	Format	RGB
	Backlight	LED
	Color Gamut Coverage	45%
	Color Depth	6-bit
	Viewing Angle	SVA 40/40/15/30
11 6 inch HD (1366x768) Anti-	Outline Dimensions (W x H x D)	278 5 x 168 52 (mm) max

11.6 inch HD (1366x768) Anti-Glare WLED UWVA 50percent cg 220nits eDP 1.2 w/o PSR slim **Touch on Panel** 

Outline Dimensions (W x H x D) 278.5 x 168.52 (mm) max 256.125 x 144 (mm) **Active Area** 200g max Weight 11.6 (inch) **Diagonal Size** 3.20 (mm) max Thickness eDP 1.2 Interface Anti-glare (AG) Surface Treatment yes **Touch Enabled** 1000:1 (typical) **Contrast Ratio** 60Hz **Refresh Rate** 220nit typical (Panel Only)<sup>1</sup> Brightness 1366x768 (HD) **Pixel Resolution** RGB Format LED Backlight 50% **Color Gamut Coverage** 6 bit **Color Depth** UWVA 85/85/85/85 **Viewing Angle** 

### Technical Specifications

11.6 inch HD (1366x768) Anti-
Glare WLED UWVA 50percent cg
220nits eDP slim

Outline Dimensions (W x H x D)	278 x 168(mm) max
Active Area	256.125 × 144.0 (mm)
Weight	200g max.
Diagonal Size	11.6 (inch)
Thickness	3.0 (mm) max
Interface	eDP 1.2
Surface Treatment	Anti-glare (AG)
Touch Enabled	No
Contrast Ratio	800:1 (typical)
Refresh Rate	60HZ
Brightness	220nit typical (Panel Only)
Pixel Resolution	1366x768 (HD)
Format	RGB
Backlight	LED
Color Gamut Coverage	50%
Color Depth	6 bit
Viewing Angle	278 x 168(mm) max

#### STORAGE

eMMC 5.0

Drive Weight	0.2g
Rotation speed	32GB/64GB
Cache Buffer	
Height	1.4mm
Width	11.5x13mm
Interface	MMC protocol
Transfer Rate	Up to 250 MB/s
Seek Time	Up to 70 MB/s
Logical Blocks	32GB(31,268,536,320 Bytes)/64GB(62,537,072,640 Bytes)
Operating Temperature	0 to 70
Security Features	HS400

For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 9 GB is not user available.

#### **NETWORKING**

WLAN dual-band 802.11a/b/g/n/ac (2x2) and Bluetooth® 4.2 Combo 1	Wireless LAN Standards	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac
	Interoperability	QCA6174A passed Google AVL tests for Wi-Fi/BT
	Frequency Band	IEEE 802.11a/b/g/n/ac (2.4GHz and 5GHz)
	Data Rates	802.11b: 1, 2, 5.5, 11 Mbps 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n: MCS 0 ~ MCS 15, (20/40/80 MHz) 802.11ac: MCS 0 ~ MCS 9, (20/40/80 MHz), 1x1/2x2

Technical Specifications			
	ılation		SK for DSSS QPSK, BPSK for OFDM M in 11ac mode and VHT (20/40) mode
Secu	rity <sup>3</sup>	for a/b/g • AES-CCI • 802.1x a	
Netw Mode	vork Architecture els	Infrastructure (A	ccess Point Required)
Roan	ning	IEEE 802.11 com	pliant roaming between access points
Outp	ut Power <sup>2</sup>	<ul> <li>802.11g</li> <li>802.11a</li> <li>802.11n</li> <li>802.11n</li> <li>802.11n</li> <li>802.11n</li> <li>802.11n</li> <li>802.11ac</li> <li>802.11ac</li> </ul>	: +17dBm minimum : +14dBm minimum : +9dBm minimum HT20(2.4GHz) : +14dBm minimum HT40(2.4GHz) : +14dBm minimum HT20(5GHz) : +7dBm minimum HT40(5GHz) : +7dBm minimum c HT20(5GHz) : +6dBm minimum c HT40(5GHz) : +5dBm minimum c HT80(5GHz) : +5dBm minimum
Powe	er Consumption	Transmit: 2.0 W ( Receive: 1.6 W (m Idle mode: 60 mV	iax)
Powe	er Management	Voltage scaling o Fast start and se Active duty cycle	dle or inactive blocks In specific blocks in certain states ttling circuits to reduce Tx; s, processor frequency scaling, and other techniques to consumption across all operating states.
Rece	iver Sensitivity <sup>4</sup>	802.11g, 54Mbps 802.11a, 54Mbps 802.11n 2.4g,HT 802.11n 2.4g,HT 802.11n 5g, HT20 802.11n 5g, HT40 802.11n 5g, HT40 802.11n 5g, HT40	5 : -84dBm maximum 5 : -70dBm maximum 5 : -70dBm maximum 20 : -69dBm maximum 40 : -67dBm maximum 0 : -68dBm maximum 0 : -63dBm maximum 0 : -63dBm maximum 0 : -59dBm maximum 0 : -56dBm maximum
	nna type	enclosure Two er support WLAN an Single antenna, d	ntenna with spatial diversity, mounted in the display nbedded 2.4 GHz antennas are provided to the card to nd Bluetooth communications (Support Dual antenna or lepend on platform requirement)
	Factor	SDIO M.2 type 12	
	nsions	Туре 1216 : 12 х	16 mm
Weig		·	
-	ating Voltage	3.3v +/- 5%	
	perature	Operating Non-operating	-10° to 70° C -40° to 85° C
Humi	dity	Operating Non-operating	Should be under 85% RH Should be under 95% RH

Integrated Module with Bluetooth 5.0 Wireless Technolo	gy
--	----

-	5,
<b>Bluetooth Specification</b>	BT5.0/4.2+HS , BLE and be backwards compatible with BT1.2,2.x+EDR.
Frequency Band	2402 to 2480 MHz
Number of Available Channels	Legacy : 0~79 (1 MHz/CH) BLE : 0~39 (2 MHz/CH)
Data Rates and Throughput	Legacy : 3 Mbps data rate; throughput up to 2.17 Mbps BLE : 1 Mbps data rate; throughput up to 0.2 Mbps Legacy : Synchronous Connection Oriented links, 64 kbps, voice channels Legacy : Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5)"
Transmit Power	Typical:+6dBm (Class1) (Note: platform side can based on BT class requirement to configure BT power level via BT nvm setting)

1. Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 5 (802.11 ac) is backwards compatible with prior 802.11 specs.

2. The FCC has declared as of September 1, 2014 products that utilize passive scanning on channel 12/13 and are capable of transmitting must fully comply with requirements of 15.247 or otherwise disable those channels.

3. 1. Check latest software/driver release for updates on supported security features.

4. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CKK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).

#### POWER

45W PD adapter	Dimensions	3.74 x 1.69 x 1.08 in (9.5 x 4.3 x 2.75 cm)
•	Weight	0.45 lbs (200g) max
		(Not including power cord. Power cord varies by country.)
	Input	100 to 240 VAC
	Input Efficiency	Average Efficiency of 25%, 50%, 75%, 100% load condition with 115Vac/230Vac Spec: 5V : 81.5% 9V : 86.7% 12V : 87.41%
		15V:87.8%
	Input frequency range	47 ~ 63Hz
	Input AC current	Max. 1.4 A at 90 Vac
	Output	5V/9V/12V/15V
	Output power	45W
	DC output	5V/9V/12V/15V
	Hold-up time	5ms at 115 Vac input
	Output current limit	<5.0A
	Connector	USB Type-C
	Operating temperature	32°F to 95°F (0°to 35°C)
	Non-operating (storage) temperature	-4°F to 185°F (-20° to 85°C)
	Altitude	0 to 16,400 ft (0 to 5000m)

Humidity	20% to 95%
Storage Humidity	10% to 95%
EMI and Safety Certifications	Eg: *CE Mark - full compliance with LVD and EMC directives * Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE. * MTBF - over 200,000 hours at 25°C ambient condition.

#### **ENVIRONMENTAL DATA**

This product has received or is in the process of being certified to the following approvals and may be labeled with Eco-Label one or more of these marks: Certifications IT ECO declaration & declarations US ENERGY STAR® • US Federal Energy Management Program (FEMP) • EPEAT? Gold registered in the United States. See http://www.epeat.net for registration status in your country. • TC0 8.0 • China Energy Conservation Program (CECP) China State Environmental Protection Administration (SEPA) • Taiwan Green Mark Korea Eco-label • Japan PC Green label\* Sustainable Ocean-bound plastic in (part(s)) Impact 2.72% post-consumer recycled plastic External Power Supply 90% Efficiency **Specifications**  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 • Bulk packaging available The configuration used for the Energy Consumption and Declared Noise Emissions data for the Notebook model is System based on a "Typically Configured Notebook"?. Configuration Energy Consumption (in accordance with US **ENERGY STAR®** 115VAC. 60Hz 230VAC. 50Hz 100VAC, 50Hz test method) 2.796 W 2.676 W Normal 2.652 W **Operation** (Sort idle) 0.612 W 0.684 W Normal 0.612 W **Operation** (Long idle) 0.30 W 0.336 W 0.30 W Sleep Off 0.192 W 0.228 W 0.192 W

Note:

Energy efficiency data listed is for an ENERGY STAR<sup>®</sup> compliant product if offered within the model family. HP computers marked with the ENERGY STAR<sup>®</sup> Logo are compliant with the applicable U.S. Environmental Protection

#### **Technical Specifications**

Agency (EPA) ENERGY STAR<sup>®</sup> specifications for computers. If a model family does not offer ENERGY STAR<sup>®</sup> 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<sup>®</sup> operating system.

Heat	115VAC, 60Hz	230VAC, 50Hz	100VAC, 50Hz
Dissipation*		0.0711/1	
Normal Operation	8 BTU/hr	9 BTU/hr	8 BTU/hr
(Short idle) Normal	2 BTU/hr	2 BTU/hr	2 BTU/hr
Operation (Long idle)			
Sleep Off	1 BTU/hr 1 BTU/hr	1 BTU/hr 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.

Declared Noise Emissions (in accordance with ISO 7779 and	Sound Power (L <sub>WAd</sub> , bels)	Sound Pressure (L <sub>pAm</sub> , decibels)
<b>ISO 9296)</b> Typically Configured - Idle	2.3	23.9
Fixed Disk - Random writes	2.3	23.9
Optical Drive - Sequential reads	2.3	23.9
Longevity and	This product can be upgraded, possibly extending its us	eful life by several years. Upgrade

leable features and/or components contained in the spare parts are available throughout the warranty period and or for Upgrading up to "5"? years after the end of production.

- Additional This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive -Information 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 2.72% recycle-able when properly disposed of at end of life.

Packaging Materials	External:	PAPER/Corrugated	186 g
		PAPER/Corrugated	40 g
	Internal:	PAPER/Molded pulp	121 g
		PLASTIC/Polyethylene low density	7 g
		ging material contains at least 100% re-	
		per packaging materials contains at lea	
RoHS Compliance	•	, ,	among the first companies to extend the ardous Substances (RoHS) Directive to our

#### **Technical Specifications**

products worldwide through the HP GSE. HP has contributed to the development of related legislation in Europe, as well as China, India, and Vietnam.

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.

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.

To obtain a copy of the HP RoHS Compliance Statement, see HP RoHS position statement.

## Material UsageThis product does not contain any of the following substances in excess of regulatory limits (refer to the HP<br/>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
- 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)

#### Packaging Usage

- 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.

HP follows these guidelines to decrease the environmental impact of product packaging:

- 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-lifeHP offers end-of-life HP product return and recycling programs in many geographic areas. To recycle yourManagementproduct, please go to: http://www.hp.com/go/reuse-recycle or contact your nearest HP sales office. Products<br/>returned to HP will be recycled, recovered or disposed of in a responsible manner.

#### **Technical Specifications**

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.		

HP, Inc.	For more information about HP's commitment to the environment:
Corporate Environmental Information	Global Citizenship Report
	http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html
	Eco-label certifications
	http://www8.hp.com/us/en/hp-information/environment/ecolabels.html
footnotes COUNTRY OF	<ul> <li>ISO 14001 certificates:</li> <li>http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c04755842</li> <li>and</li> <li>http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf</li> <li>Percentage of ocean-bound plastic contained in each component varies by product</li> <li>Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard.</li> <li>External power supplies, WWAN modules, power cords, cables and peripherals excluded.</li> <li>100% outer box packaging and corrugated cushions made from sustainably sourced certified and recycled fibers.</li> <li>Fiber cushions made from 100% recycled wood fiber and organic materials.</li> <li>Plastic cushions are made from &gt;90% recycled plastic.</li> </ul>
	China

### Options and Accessories (sold separately and availability may vary by country)

Category	Description	Part Number
Cases	HP Always On Black 11.6 Case	1D3D0AA
	HP Prelude Pro Recycle Backpack	1X644AA
	HP Prelude Pro Recycle Top Load	1X645AA
Docking	HP USB-C/A 120W Universal Dock G2	5TW13AA,5TW13UT,5TW13ET
	HP USB-C Travel Dock G2	7PJ38AA,7PJ38UT,7PJ38ET
Input/Output	HP USB-C to HDMI 2.0 Adapter	2PC54AA,1WC36UT,1WC36AA
	HP USB-C to RJ45 Adapter	V8Y76AA, V7W66AA, V7W66UT
	HP USB-C to USB 3.0 Adapter	N2Z63AA, N2Z63UT
	HP USB-C to VGA Adapter	P7Z54AA, N9K76AA
	HP 320M Wired Mouse	9VA80AA, 9VA80UT, 9VA80ET
	HP Comfort Grip USB Wireless Mouse	H2L63AA, H2L63UT
	HP Fingerprint Reader USB Mouse	4TS44AA, 4TS44UT, 4TS44ET
	HP Laser 3 Button USB Mouse	H4B81AA, H4B81ET
	HP Premium USB Mouse	1JR32AA, 1JR32UT
	HP Presenter Bluetooth Mouse	2CE30AA, 2CE30UT, 2CE30ET
	HP Travel Bluetooth Mouse	6SP30AA, 6SP30UT, 6SP30ET
	HP Travel USB Mouse	G1K28AA, G1K28ET
	HP USB Premium Wireless Mouse	1JR31AA, 1JR31UT
	HP X4000 Bluetooth Wireless 2.4GHz Mouse	H3T50AA, H3T50UT
	HP WL USB Agnes Keyboard	T6U20AA,T6U20UT
	HP Slim Wireless Keyboard and Mouse	T6L04AA,T6L04UT
	HP Wireless USB Premium Keyboard	Z9N41AA,Z9N41AT
	HP Wireless Rechargeable 950MK Mouse and Keyboard	3M165AA, 3M165UT
	HP Wired Desktop 320MK Mouse and Keyboard	9SR36AA,9SR36UT,9SR36ET
	HP 235 WL Mouse and Keyboard Combo	1Y4D0AA, 1Y4D0UT,
	HP 125 Wired Keyboard	266C9AA, 266C9UT,
	HP 225 Wired Mouse and Keyboard Combo	286J4AA, 286J4UT,
Power	HP 45W USB-C G2 AC Power Adapter	1HE07AA
	HP 45W USB-C LC AC Power Adapter	1MZ01AA
	HP 65W USB-C AC Power Adapter	1HE08AA
	HP 65W USB-C Slim Travel AC Power Adapter	X7W50AA, 3PN48AA, 3PN48UT
Security	HP Nano Cable Lock	1AJ39AA,1AJ39UT
-	HP SureKey Standard/Nano/Wedge Cable Lock	6UW42AA,6UW42UT
UCC	HP Stereo 3.5mm Headset	T1A66AA
	HP Wired USB-A Stereo Headset	T1A67AA

#### Summary of Changes

Date of change:	Version History:	Updated	Description of change:
February 10, 2021	V1 to V2	Add	Environmental Data
February 18, 2021	V2 to V3	Update	Environmental Data
March 10, 2021	V3 to V4	Add	Battery Life
March 22, 2021	V4 to V5	Updated	Micro SD card reader
	V5 to V6		

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