Overview

### **HP Pro c640 Chromebook**



- 1. Microphones (2)
- 2. Camera LED
- 3. Privacy Camera
- 4. HD Camera
- 5. Touch pad

### Left

- 6. Nano Security Lock Slot
- USB-C™ 3.1 Gen 1 (Support charging, Power delivery, Video, Data)
- 8. HDMI 1.4
- 9. USB Type-A™ 3.1 Gen1 Port

### **Overview**



- 1. Power Button
- 2. USB Type-A™ 3.1 Gen1 Port
- 3. USB-C<sup>™</sup> 3.1 Gen 1 (Support charging, Power delivery, Video, Data)

### Right

- 4. Stereo Headphone / Microphone Combo Jack
- 5. MicroSD™ Memory Card Reader
- 6. Fingerprint Sensor (select models)

Overview

## AT A GLANCE

- Supports 10th Generation Intel® Core™ Processors
- Up to 16 GB memory and 128 GB eMMc storage options
- Data transfer in dense classroom environments by having Wi-Fi 6 2X2 ax WLAN with MU-MIMO and HP Extended Range Wireless Lan design
- Sleek design with aluminum cover & narrow border display
- Bett conferencing experience with audio by B&O
- HP Privacy Camera to physically cover the webcam and mic.
- Optional fingerprint Sensor<sup>3</sup> (select models) for seamless login
- · Optional backlit keyboard for working in dark environment
- Optional touchscreen for intuitive interactions
- HP Fast Charge Technology with long battery life for supporting your long work day<sup>2</sup>
- One HDMI port for instant collaboration without dongles
- Supports HP USB Type-C® docks and docking monitors
- Supports up to 3/3/0 warranty
- Tested for 19 MIL-STD 810H tests<sup>1</sup>
- Easy to carry around 16.5 mm height plus 1519 g weight
- 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.
- 2. Recharges up to 90% within 90 minutes when the system is off or in standby mode when used with the power adapter provided with the notebook. After charging has reached 90% capacity, charging speed will return to normal. Charging time may vary +/-10% due to System tolerance.
- 3. HP Fingerprint Sensor is an optional feature and requires configuration at purchase.

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



## **Technical Specifications**

#### **PRODUCT NAME**

HP Pro C640 Chromebook

#### **OPERATING SYSTEM**

**Preinstalled** 

Chrome OS™

#### **PROCESSOR**

Intel® Pentium® Gold 6405U processor with Intel® UHD Graphics

(2.4 GHz base frequency, 2 MB L3 cache, 2 cores)<sup>1,2,3</sup>

Intel® Core™ i3-10110U processor with Intel® UHD Graphics

(2.1 GHz base frequency, up to 4.1 GHz with Intel® Turbo Boost Technology, 4 MB L3 cache, 2 cores)<sup>1,2,3</sup>

Intel® Core™ i5-10310U processor with Intel® UHD Graphics (1.6 GHz base frequency, up to 4.4 GHz with Intel® Turbo Boost Technology, 6 MB L3 cache, 4 cores), supports Intel® Technology<sup>1,2,3</sup>

Intel® Core™ i7-10610U processor with Intel® UHD Graphics (1.8 GHz base frequency, up to 4.9 GHz with Intel® Turbo Boost Technology, 8 MB L3 cache, 4 cores), supports Intel® Technology<sup>1,2,3</sup>

Intel® Core™ i5-10210U processor with Intel® UHD Graphics (1.6 GHz base frequency, up to 4.2 GHz with Intel® Turbo Boost Technology, 6 MB L3 cache, 4 cores)<sup>1,2,3</sup>

#### **Processor Family**

10th Generation Intel® Core™ i7 processor (i7-10610U)

10th Generation Intel® Core™ i5 processor (i5-10310U)

10th Generation Intel® Core™ i3 processor (i3-10110U)

10th Generation Intel® Core™ i5 processor (i5-10210U)

Intel® Pentium® processor

- 1. 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 and your hardware and software configurations. Intel's numbering, branding and/or naming is not a measurement of higher performance.
- 2. Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.
- 3. Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. See http://www.intel.com/technology/turboboost for more information.

#### **CHIPSET**

Chipset is integrated with processor



## **Technical Specifications**

#### **GRAPHICS**

#### Integrated

Intel® UHD Graphics4

#### **Supports**

Support HD decode, DX12, HDMI 1.4b

4. HD content required to view HD images.

### **DISPLAY**

#### Non-Touch

35.56 cm (14") diagonal HD SVA anti-glare micro-edge WLED-backlit, 220 nits, 45% NTSC (1366 x 768)<sup>4,5,6</sup> 35.56 cm (14") diagonal FHD IPS anti-glare micro-edge WLED-backlit, 250 nits, 45% NTSC (1920 x 1080)<sup>4,5,6</sup>

#### **Touch**

35.56 cm (14") diagonal FHD IPS anti-glare On-Cell micro-edge WLED-backlit touch screen, 250 nits, 45% NTSC (1920 x 1080)<sup>4,5,6</sup>

35.56 cm (14") diagonal HD SVA anti-glare On-Cell micro-edge WLED-backlit touch screen, 220 nits, 45% NTSC  $(1366 \times 768)^{4.5.6}$ 

#### HDMI

HDMI v1.4b supporting: up to 1920 x 1080

#### **Displays support**

support extended displays through HP docks

#### **Display Size**

14"

35.56 cm (14")

- 4. HD content required to view HD images.
- Resolutions are dependent upon monitor capability, and resolution and color depth settings.
- 6. Sold separately or as an optional feature.

#### STORAGE AND DRIVES

#### **Primary Storage**

32 GB eMMC 5.07

64 GB eMMC 5.07

128 GB eMMC 5.07

7. For storage drives, GB = 1 billion bytes. Actual formatted capacity is less. Up to 8.1 GB is not user available

## **Technical Specifications**

#### **MEMORY**

#### **Maximum Memory**

16 GB DDR4 - 2666 SDRAM

### Memory

8 GB DDR4-2666 SDRAM 16GB DDR4-2666 SDRAM

#### **Memory Slots**

On-board system memory Supports Dual Channel Memory

### **NETWORKING/COMMUNICATIONS**

#### WIAN

Intel® Wi-Fi 6 AX201 802.11a/b/g/n/ac/ax (2x2) Wi-Fi® and Bluetooth® 5 Combo, non-vPro™ (Support MU-MIMO and HP Extended Range Wireless LAN)<sup>8</sup>

#### **Chromecast**

Chromecast Support9

8. Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6 is backwards compatible with prior 802.11 specs. The specifications for Wi-Fi 6 (802.11ax) are draft and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ax devices.

9. Chromecast must be purchased separately.

#### **AUDIO/MULTIMEDIA**

#### Audio

HD Audio Dual stereo Speakers Audio by B&O

#### Camera

720p HD Camera<sup>4</sup> Privacy Camera

4. HD content required to view HD images.



## **Technical Specifications**

### **KEYBOARD / POINTING DEVICES**

#### Keyboard

Full-size Textured island-style Chrome keyboard, Pike Silver, spill resistant Full-size3-coat painted island-style Chrome keyboard for FPS, backlit, Pike Silver, spill resistant 10

#### **Pointing Device**

Multi-touch gesture support, taps enabled as default

10. Backlit keyboard is an optional feature.

#### **SOFTWARE AND SECURITY**

#### **Preinstalled Software**

Google Play Store

#### **Manageability Features**

Chrome Enterprise Upgrade<sup>11,12</sup>

#### **Security Management**

Titan C

Nano Security Lock Slot11

HP Fingerprint Sensor (select models)<sup>13</sup>

#### 11. Sold separately.

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

13. HP Fingerprint Sensor is an optional feature and requires configuration at purchase.

#### **POWER**

#### **Power Supply**

AC Adapter 45 Watt nPFC Standard USB type C<sup>™</sup> Straight<sup>14</sup> AC Adapter 65 Watt nPFC Standard USB type C<sup>™</sup> Straight<sup>14</sup>

#### **Primary Battery**

HP Long Life 3-cell, 60 Wh Li-ion; supports fast charge<sup>15</sup>

#### **Power Cord**

3-wire plug - 1.0 m

#### **Battery life**

Up to 12 hours<sup>16</sup>



## **Technical Specifications**

#### **Battery Weight**

0.22 kg 0.49 lb

- 14. Availability may vary by country.
- 15. Battery is internal and not replaceable by customer. Serviceable by warranty.
- 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**

### **Product Weight**

Starting at 3.35 lb<sup>17</sup> Starting at 1.5 kg<sup>17</sup>

#### Product Dimensions (w x d x h)

12.8 x 8.07 x 0.65 in 32.5 x 20.5 x 1.65 cm

17. Weight will vary by configuration. Does not include power adapter.

### **PORTS/SLOTS**

#### **Ports**

2 USB 3.1 Type-C<sup>™</sup> Gen 1 (Power delivery, DisplayPort<sup>™</sup>)
2 USB 3.1 Type-A Gen 1
1 HDMI 1.4<sup>18</sup>
1 stereo headphone/microphone combo jack

#### **Expansion Slots**

1 MicroSD™ Memory Card Reader Supporting SD, SDHC, SDXC

18. HDMI cable sold separately.



## **Technical Specifications**

#### **SERVICE AND SUPPORT**

HP Services offers 1-year and 3-year limited warranties and 90 day software limited warranty options depending on country. Batteries have a default one year limited warranty except for long-life batteries which will have the same one or three year warranty as the platform. Refer to <a href="http://www.hp.com/support/batterywarranty">http://www.hp.com/support/batterywarranty</a>/ 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: <a href="http://www.hp.com/go/cpc.19">http://www.hp.com/go/cpc.19</a>

19. 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 <a href="http://www.hp.com/go/cpc">http://www.hp.com/go/cpc</a>. HP services are governed by the applicable HP terms and conditions of service provided or indicated to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and such 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.



## **Technical Specifications**

#### SYSTEM UNIT

**Stand-Alone Power** USB-C 45 W and 65 W adapter

**Requirements (AC Power) Nominal Operating Voltage** 5V/9V/12V/15V

> **Average Operating Power** <45 W **Integrated Graphics** Yes

**Max Operating Power UMA < 45 W** 

**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** 5% to 95%

Shock **Operating** 40 G, 2 ms, half-sine

> Non-operating 240 G, 2 ms, half-sine

**Random Vibration Operating** 1.043 grms

> Non-operating 3.5 grms

Altitude (unpressurized) Operating -50 to 10,000 ft (-15 to 3,048 m)

> Non-operating -50 to 40,000 ft (-15 to 12,192 m)

**Planned Industry Standard** Certifications

Yes **FCC Compliance** Yes **ENERGY STAR®** Yes<sup>20</sup>

**EPEAT® 2019** Yes, Silver in U.S.21

**ICES** Yes Australia / Yes **NZ RCM Compliance** Yes CCC Yes KC Yes **BSMI** Yes **CE Marking Compliance** Yes **EAC** Yes Saudi Arabian Compliance (ICCP) Yes SABS Yes

20.Configurations of the HP Pro c640 Chromebook that are ENERGY STAR® certified are identified as HP Pro c640 Chromebook ENERGY STAR on HP websites and on http://www.energystar.gov.

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

## **Technical Specifications**

#### **DISPLAYS**

Note: All specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.

14.0" diagonal FHD (1920 x 1080) Anti-Glare WLED UWVA 45% NTSC 250 nits eDP slim Touch on Panel NWBZ 

 Outline Dimensions (W x H x D)
 316.17 x 198.07 (mm) max

 Active Area
 309.37 x 174.02 (mm)

Weight 290 g max.

Diagonal Size 14.0 (inch)

Thickness 3.0 mm (Panel Side) / 3.2 mm (PCBA Side) max.

**Interface** eDP 1.2

**Surface Treatment** Anti-glare (AG)

**Touch Enabled** Yes

Contrast Ratio 600:1 (typical)

**Refresh Rate** 60 Hz

Brightness250 nit typicalPixel Resolution1920 x 1080 (FHD)

Format of LCD Pixel Arrangement RGB Backlight LED

**Color Gamut Coverage** 45% of NTSC

**Color Depth** 6 bits (Hi FRC supportive upon condition to enable)

**Viewing Angle** 85/85/85

14.0" diagonal FHD (1920 x 1080) Anti-Glare WLED UWVA 45% NTSC 250nits eDP slim NB Outline Dimensions (W x H x D) 316.17 x 197.98 (mm) max

**Active Area** 309.37 x 174.02 (mm)

Weight285 g max.Diagonal Size14.0 (inch)Thickness3.0 mm max.InterfaceeDP 1.2

Surface Treatment Anti-glare (AG)

**Touch Enabled** Yes

Contrast Ratio 600:1 (typical)

Refresh Rate 60 Hz

**Brightness** 250 nit typical Pixel Resolution 1920 x 1080 (FHD)

Format of LCD Pixel Arrangement RGB Backlight LED

Color Gamut Coverage 45% of NTSC

**Color Depth** 6 bits (Hi FRC supportive w/ condition to enable)



## **Technical Specifications**

Viewing Angle

UWVA 85/85/85/85

14.0" diagonal HD (1366 x 768) SVALEDbacklight 45% NTSC 220 nits 

 Outline Dimensions (W x H x D)
 316.2 x 186 (mm) max

 Active Area
 309.4 x 173.95 (mm)

Weight 280 g max.

Diagonal Size 14.0 (inch)

Thickness 3.0 (mm) max
Interface eDP 1.2

Surface Treatment Anti-glare (AG)

Touch Enabled None

Contrast Ratio 500:1 (typical)

Refresh Rate 60 Hz

**Brightness** 220 nit typical Pixel Resolution 1366 x 768 (HD)

Format of LCD Pixel Arrangement RGB Backlight LED

**Color Gamut Coverage** 45% of NTSC

**Color Depth** 6 bits

**Viewing Angle** 45/45/20/45



## **Technical Specifications**

### **STORAGE AND DRIVES\***

eMMC 5.0 Drive Weight 0.2 q

**Rotation speed** 32 GB/64 GB/128 GB

Cache Buffer 1.4 mm

Height11.5 x 13 mmWidthMMC protocolTransfer RateUp to 250 MB/sSeek TimeUp to 70 MB/s

**Logical Blocks** 32 GB (31,268,536,320 Bytes)/64 GB (62,537,072,640

Bytes)/128 GB (125,074,145,280 Bytes)

Operating Temperature 0 to 70
Security Features HS400

### **NETWORKING/COMMUNICATIONS**

Intel® Wi-Fi 6¹ AX200 and Wireless LAN Standards IEEE 802.11a

Bluetooth® 5.0 802.11ax IEEE 802.11b
(2 x 2), non-vPro, IEEE 802.11g
supporting gigabit file IEEE 802.11n
transfer speeds
non-vPro

IEEE 802.11ax
IEEE 802.11d
IEEE 802.11e
IEEE 802.11h
IEEE 802.11i
IEEE 802.11k
IEEE 802.11r
IEEE 802.11v

InteroperabilityWi-Fi CERTIFIED™Frequency Band•802.11b/q/n/ax

2.402 – 2.482 GHz •802.11a/n/ac/ax 4.9 – 4.95 GHz (Japan)

5.15 – 5.25 GHz 5.25 – 5.35 GHz 5.47 – 5.725 GHz 5.825 – 5.850 GHz

**Data Rates** •802.11b: 1, 2, 5.5, 11 Mbps

## **Technical Specifications**

•802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps •802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps •802.11n: MCS 0 ~ MCS 15, (20MHz, and 40MHz)

•802.11ac: MCS0 ~ MCS9, (1SS, and 2SS) (20MHz, 40MHz, 80MHz &

160MHz)

• 802.11ax: MCS0 ~ MCS11, (1SS and 2SS) (20MHz, 40MHz, 80MHz &

160MHz)

**Modulation** Direct Sequence Spread Spectrum

OFDM, BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM

Security<sup>3</sup> •IEEE and Wi-Fi compliant 64 / 128 bit WEP encryption for a/b/g mode

only

•AES-CCMP: 128 bit in hardware

•802.1x authentication

•WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES.

•WPA2 certification
•IFFF 802.11i

•WAPI

**Network Architecture** 

Models

Ad-hoc (Peer to Peer)

Infrastructure (Access Point Required)

**Roaming** IEEE 802.11 compliant roaming between access points

Output Power<sup>2</sup> • 802.11b: +18.5dBm minimum

802.11g: +17.5dBm minimum802.11a: +18.5dBm minimum

802.11n HT20(2.4GHz): +15.5dBm minimum
802.11n HT40(2.4GHz): +14.5dBm minimum
802.11n HT20(5GHz): +15.5dBm minimum
802.11n HT40(5GHz): +14.5dBm minimum
802.11ac VHT80(5GHz): +11.5dBm minimum
802.11ac VHT160(5GHz): +11.5dBm minimum
802.11ax HT40(2.4GHz): +10dBm minimum
802.11ax VHT160(5GHz): +10dBm minimum

**Power Consumption** •Transmit mode: 2.0 W

Receive mode: 1.6 W

•Idle mode (PSP) 180 mW (WLAN Associated) •Idle mode: 50 mW (WLAN unassociated)

Connected Standby: 10 mW

•Radio disabled: 8 mW

**Power Management** ACPI and PCI Express compliant power management

802.11 compliant power saving mode

**Receiver Sensitivity**<sup>4</sup> •802.11b, 1Mbps: -93.5dBm maximum



## **Technical Specifications**

•802.11b, 11Mbps: -84dBm maximum
•802.11a/g, 6Mbps: -86dBm maximum
•802.11a/g, 54Mbps: -72dBm maximum
•802.11n, MCS07: -67dBm maximum
•802.11n, MCS15: -64dBm maximum
•802.11ac, MCS0: -84dBm maximum
•802.11ac, MCS9: -59dBm maximum

•802.11ax, MCS11(HT40): -59dBm maximum
•802.11ax, MCS11(VHT160): -58.5dBm maximum

**Antenna type** High efficiency antenna with spatial diversity, mounted in the display

enclosure

Two embedded dual band 2.4/5 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications

Form Factor PCI-Express M.2 MiniCard

**Dimensions** Type 2230: 2.3 x 22.0 x 30.0 mm

Type 1216: 1.67 x 12.0 x 16.0 mm

**Weight** Type 2230: 2.8 g

Type 126: 1.3 g

Operating Voltage 3.3 v +/- 9%

**Temperature** Operating: 14° to 158° F (–10° to 70° C)

Non-operating: -40° to 176° F (-40° to 80° C)

**Humidity** Operating: 10% to 90% (non-condensing)

Non-operating: 5% to 95% (non-condensing)

**Altitude** Operating: 0 to 10,000 ft (3,048 m)

Non-operating: 0 to 50,000 ft (15,240 m)

**LED Activity** LED Amber – Radio OFF

LED OFF - Radio ON

### HP Integrated Module with Bluetooth 4.0/4.1/4.2/5.0/5.1 Wireless Technology

**Bluetooth Specification** 4.0/4.1/4.2/5.0/5.1 Compliant

Frequency Band 2402 to 2480 MHz

Number of Available Legacy: 0~79 (1 MHz/CH)

Channels BLE: 0~39 (2 MHz/CH)

**Signaling Data Rate** Legacy: 3 Mbps signaling data rate<sup>1</sup> 2.17 Mbps

BLE: 1 Mbps signaling data rate 0.2 Mbps

1. Actual throughput may vary.

Legacy: Synchronous Connection Oriented links, 3, 64 kbps, voice

channels

Legacy: Asynchronous Connection Less links 2178.1 kbps/177.1 kbps



## **Technical Specifications**

asymmetric (3-DH5) or 864 kbps symmetric (3-EV5)

**Transmit Power** 

The Bluetooth component shall operate as a Class II Bluetooth device with

a maximum transmit power of + 9.5 dBm for BR and EDR.

- 1. Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6 is backwards compatible with prior 802.11 specs. The specifications for Wi-Fi 6 (802.11ax) are draft and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ax devices. Only available in countries where 802.11ax is supported.
- 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. 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).



## **Technical Specifications**

#### **POWER**

AC Adapter 65 Watt nPF Standard USB type C™ Straight 1.8 m

AC Adapter 65 Watt nPFC Dimensions (H x W x D) 90 mm x 51 mm x 28.5 mm

**Weight** 220 g +/-20%

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: 88% 15V: 89% 20V: 89%

**Input frequency range** 47 ~ 63Hz

Input AC current Max. 1.6 A at 90 Vac

**Output** 5V/9V/12V/15V/20V

Output power 65 W

**Hold-up time** 5ms at 115 Vac input

Output current limit <8.0 A

**Connector** USB Type-C™

**Environmental Design** 

**Operating** 32°F to 95°F (0°C to 35°C) **temperature** 

Non-operating (storage)

temperature

-4°F to 185°F (-20°C 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 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.

AC Adapter 45 Watt nPFC Standard USB type C™ Straight

**Dimensions** ( $H \times W \times D$ )

95 mm x 43 mm x 27.5 mm

Weight

200 g +/-10%

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%



## **Technical Specifications**

Input frequency range 47 ~ 63Hz

Input AC current Max. 1.4 A at 90 Vac

Output 5V/15W

9V/27W 12V/36W 15V/45W

**Output power** 45 W

DC output 5V/9V/12V/15V Hold-up time 5ms at 115 Vac input

**Output current limit** <5.0 A

Connector USB Type-C™

**Environmental Design Operating** 

32°F to 95°F (0°C to 35°C) temperature

Non-operating (storage)

temperature

**Altitude** 0 to 16,400 ft (0 to 5000m)

**Humidity** 20% to 95% **Storage Humidity** 10% to 95%

**EMI and Safety** Certifications

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

-4°F to 185°F (-20°C to 85°C)

B, CISPR22 Class B, CCC, NOM-1 NYCE.

MTBF - over 200,000 hours at 25°C ambient condition.

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

Category	Description	Part Number
Cases	HP Business Slim Top Load	2UW02AA
	HP 14.0 Always On Black Case	3YF54AA
	HP Essential Top Load Case (up to 15.6")	H2W17AA
	HP Essential Backpack (up to 15.6")	H1D24AA
Docking	HP USB-C/A Universal Dock G2	5TW13AA
	<ol> <li>According to Chromebook hardware design, this platform can only support up to dual 4k displays through the dock.</li> </ol>	
	<ul><li>2. According to Chrome OS limitation, the power button function of the dock will not be supportable.</li><li>3. Do not support HP Alt Mode</li></ul>	
	HP USB-C Travel Dock G2	7PJ38AA
Input/output	HP 3-Button Laser Mouse	H4B81AA
	HP USB Optical Travel mouse	G1K28AA
	HP Bluetooth Travel Mouse	6SP30AA
	HP Essential USB Mouse	2TX37AA
	HP Stereo USB Headset	T1A67AA
	HP Stereo 3.5mm Headset	T1A66AA
	HP USB-C to DP	N9K78AA
	HP USB-C to HDMI 2.0 Adapter	1WC36AA
	HP USB-C to USB HUB	Z6A00AA N7P47AA
	HP USB to RJ45 Adapter  HP USB-C Travel Dock G2	7PJ38AA
	np USB-C Havel Duck G2	/PJ30AA
Power	HP 45 W USB-C G2 Power Adapter	1MZ01AA
	65 W USB-C Slim Power adapter	3PN48AA
	HP Notebook USB-C Power Bank	2NA10AA
Storage	HP External USB Optical Drive	F2B56AA
Security	HP Nano Keyed Cable Lock	1AJ39AA
	HP Sure Key Cable Lock	6UW42AA
Displays	HP E24d G4 Advanced Docking monitor	6PA50AA
F <b>&gt; -</b>	HP E27d G4 Advanced Docking monitor	6PA56AA
	2	3. 7.30.01



## **Summary of Changes**

Date of change:	Version History:		Description of change:
December 18, 2020	V1 to V2	Update	Software and Security
February 3. 2021	V2 to V3	Update	Processor and Memory section
May 19, 2021	V3 to V4	Update	Software section
	V4 to V5		

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