

### Overview

#### HP Elite c1030 Chromebook Enterprise



#### Left

1. Microphones
2. HD Camera
3. Touch Pad
4. HP Privacy Switch
5. Volume Control Button
6. Power Button
7. Nano Security Lock Slot (Lock sold separately)
8. USC-C® 3.2 Gen 1 (Support charging, Power delivery, Video, Data)
9. Stereo Headphone / Microphone Combo Jack

### Overview



#### Right

1. USB Type-A™ 3.2 Gen1 Port
2. USB-C® 3.2 Gen 1 (Support charging, Power delivery, Video, Data)
3. MicroSD™ Memory Card Reader
4. HP Fingerprint Sensor

### Overview

#### AT A GLANCE

- Supports up to 10<sup>th</sup> Gen Intel® Core™ i7 Processor
  - Up to 16 GB memory and 256 GB PCIe SSD storage options
  - World's highest screen-to-body ratio (90.1%) in a Chromebook and with 3:2 FHD touchscreen
  - 75% recycled aluminum front cover and recycled materials on the keyboard, speaker and packaging
  - Easy to carry around - 16.1 mm height & 1300 g weight
  - Instantly block prying eyes by optional HP Sure View Reflect
  - Skip the passwords and enjoy fast unlock with the integrated fingerprint sensor
  - Physically blackscreen your webcam with the handy privacy switch on the side of the keyboard
  - Backlit keyboard
  - Audio by Bang & Olufsen
  - Greater speed and stability on crowded networks with 2x2 ax wireless and HP Extended Range Wireless LAN
  - Connect with optional LTE
  - HP Fast Charge Technology with long-life battery for supporting your long workday<sup>1</sup>
  - Undergo 19 MIL-STD 810H<sup>2</sup> Tests and with a keyboard that resists spills
  - Intuitively take notes with the optional, high-performance USI active pen that can magnetically attach to your PC<sup>3</sup>
  - Support HP USB Type-C docks and docking monitors
- Support up to 3/3/0 warranty

1. 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.

2. MIL-STD-810H testing is not intended to demonstrate fitness of U.S. Department of Defense (DoD) 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.

3. USI active pen is an optional feature.

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

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

### PRODUCT NAME

HP Elite c1030 Chromebook Enterprise

### OPERATING SYSTEM

**Preinstalled** Chrome OS™ 64 with Chrome Enterprise Upgrade

**NOTE:** Single Chrome Enterprise Upgrade included. Requires one-time setup, subscription, Google Admin Console, and your organization's domain. Please see <https://support.google.com/a/answer/60216>

### PROCESSOR

Intel® Core™ i3 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>1,2,3,4</sup>

Intel® Core™ i5 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>1,2,3,4</sup>

Intel® Core™ i7 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>1,2,3,4</sup>

#### Processor Family

10th Generation Intel® Core™ i7 processor (i7-10610U)<sup>4</sup>

10th Generation Intel® Core™ i5 processor (i5-10310U)<sup>4</sup>

10th Generation Intel® Core™ i3 processor (i3-10110U)<sup>4</sup>

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.

4. In accordance with Microsoft's support policy, HP does not support the Windows 8 or Windows 7 operating system on products configured with Intel and AMD 7th generation and forward processors or provide any Windows 8 or Windows 7 drivers on <http://www.support.hp.com>.

### CHIPSET

Chipset is integrated with processor

### GRAPHICS

#### Integrated

Intel® UHD Graphics<sup>5</sup>

#### Supports

Support HD decode, DX12

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

5. HD content required to view HD images.

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### DISPLAY

#### Touch

34.29 cm (13.5") diagonal FHD IPS eDP + PSR BrightView micro-edge WLED-backlit ultraslim touch screen with HP Sure View Gen4 integrated privacy screen, 1000 nits, 72% NTSC (1920 x 1280)<sup>5,6,7</sup>

34.29 cm (13.5") diagonal FHD anti-glare WLED-backlit Bend Type touch screen, 400 nits, 72% NTSC (1920 x 1280)<sup>5,6</sup>

34.29 cm (13.5") diagonal FHD BrightView WLED-backlit Bend Type touch screen, 400 nits, 72% NTSC (1920 x 1280)<sup>5,6</sup>

#### Displays support

Support extended displays through HP docks

5. HD content required to view HD images.

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

7. HP Sure View G4 integrated privacy screen is an optional feature that must be configured at purchase and is designed to function in landscape orientation.

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### STORAGE AND DRIVES

#### Primary M.2 Storage

128 GB PCIe® NVMe™ M.2 SSD<sup>8</sup>

256 GB PCIe® NVMe™ M.2 SSD<sup>8</sup>

8. For storage drives, GB = 1 billion bytes. Actual formatted capacity is less.

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### MEMORY

#### Maximum Memory

16 GB DDR4-2666 SDRAM

#### Memory

8 GB DDR4-2666 SDRAM

16 GB DDR4-2666 SDRAM

#### Memory Slots

On-board system memory

Supports Dual Channel Memory

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

### NETWORKING/COMMUNICATIONS

#### WLAN

Intel® Wi-Fi 6 AX201 802.11a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 5 Combo, non-vPro™ (Support MU-MIMO and HP Extended Range Wireless LAN)<sup>9</sup>

#### WWAN

Intel® XMM™ 7360 LTE-Advanced Cat 9

#### Chromecast

Chromecast Support<sup>10</sup>

9. 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

10. Chromecast must be purchased separately.

### AUDIO/MULTIMEDIA

#### Audio

HD audio

Dual stereo speakers

Audio by Bang & Olufsen

#### Camera

720p HD camera with Privacy Switch<sup>5</sup>

5. HD content required to view HD images.

### KEYBOARD / POINTING DEVICES

#### Keyboard

Full-size Textured island-style Chrome keyboard, Flint Silver, backlit, spill resistant<sup>11</sup>

Full-size Textured island-style Chrome keyboard, Flint Silver, backlit, spill resistant, HP Sure View Reflect<sup>11</sup>

#### Pointing Device

Clickpad with Soda-lime Glass

Multi-touch gesture enabled, taps enabled as default

#### Function Keys



Go to the previous page



Refresh your current page



Make your page take up the full screen













Show all your open windows



Make screenshot

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

-  Decrease screen brightness
-  Increase screen brightness
-  Decrease keyboard brightness
-  Increase keyboard brightness
-  Play/Pause
-  Mute
-  Lower the volume
-  Raise the volume
-  Lock screen
-  Enable HP Sure View Reflect

#### Pen

HP active USI Pen (Optional)

11. [Backlit keyboard is an optional feature.](#)

## SOFTWARE AND SECURITY

### Security Management

Google Titan C

Fingerprint Sensor

Nano security lock slot<sup>12</sup>

HP Sure View Reflect (optional)

12. [Lock is sold separately.](#)

**NOTE:** Single Chrome Enterprise Upgrade included. Requires one-time setup, subscription, Google Admin Console, and your organization's domain. Please see <https://support.google.com/a/answer/60216>

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

### POWER

#### Power Supply

AC Adapter 45 Watt nPFC Standard USB Type-C® Straight<sup>13</sup>

AC Adapter 65 Watt nPFC Standard USB Type-C® Straight<sup>13</sup>

#### Primary Battery

HP Long Life 4-cell, 50 Wh Li-ion polymer<sup>14</sup>

#### Power Cord

3-wire plug – 1.0 m

#### Battery life

Up to 12 hours<sup>15</sup>

Support HP Fast Charge Technology (90 mins to 90%)<sup>16</sup>

#### Battery Weight

0.22 kg

0.49 lb

13. Availability may vary by country.

14. Battery is internal and not replaceable by customer. Serviceable by warranty.

15. 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 <http://www.chromium.org/chromium-os/testing/power-testing> for test details.

16. Recharges the battery up to 90% within 90 minutes when the system is off or in standby mode. Power adapter with a minimum capacity of 65 watts is required. After charging has reached 50% capacity, charging will return to normal. Charging time may vary +/-10% due to System tolerance.

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### WEIGHTS & DIMENSIONS

#### Product Weight Imperial

With WLAN: Starting at 2.87 lb<sup>17</sup>

With WWAN: Starting at 2.99 lb<sup>17</sup>

#### Product Weight Metric

With WLAN: Starting at 1.33 kg<sup>17</sup>

With WWAN: Starting at 1.36 kg<sup>17</sup>

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

11.6 x 8.5 x 0.6 in (with BrightView display)

11.6 x 8.5 x 0.7 in (with anti-glare display)

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

29.5 x 21.7 x 1.61 cm (with BrightView display)

29.5 x 21.7 x 1.67 cm (with anti-glare display)

17. Weight will vary by configuration.



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

### PORTS/SLOTS

#### Ports

- 2 USB 3.2 Type-C® (Charge and video support, data transfer, power delivery)
- 1 USB-A 3.2 Gen 1
- 1 Stereo Headphone/Microphone Combo Jack

#### Expansion Slots

- 1 micro SD
- 1 multi-format digital media reader
- Supports SD, SDHC, SDXC

### 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 battery. 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 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.

### SYSTEM UNIT

<b>Stand-Alone Power Requirements (AC Power)</b>	USB-C® 45 W and 65W adapter
	<b>Nominal Operating Voltage</b> 5V/9V/12V/15V
	<b>Average Operating Power</b> 45W/65W
	<b>Integrated Graphics</b> Yes
<b>Temperature</b>	<b>Max Operating Power</b> < 45 W
	<b>Operating</b> 41° to 95° F (5° to 35° C)
<b>Relative Humidity</b>	<b>Non-operating</b> 32° to 95° F (0° to 35° C)
	<b>Operating</b> 10% to 90%
<b>Shock</b>	<b>Non-operating</b> 5% to 95%
	<b>Operating</b> 40 G, 2 ms, half-sine
<b>Random Vibration</b>	<b>Non-operating</b> 240 G, 2 ms, half-sine
	<b>Operating</b> 1.043 grms
<b>Altitude (unpressurized)</b>	<b>Non-operating</b> 3.5 grms
	<b>Operating</b> -50 to 10,000 ft (-15 to 3,048 m)
	<b>Non-operating</b> -50 to 40,000 ft (-15 to 12,192 m)

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

<b>Planned Industry Standard Certifications</b>	<b>UL</b>	Yes
	<b>CSA</b>	No
	<b>FCC Compliance</b>	Yes
	<b>ENERGY STAR®</b>	Yes <sup>19</sup>
	<b>EPEAT® 2019</b>	Yes, Silver in U.S. <sup>20</sup>
	<b>ICES</b>	Yes
	<b>Australia / NZ RCM Compliance</b>	Yes
	<b>CCC</b>	Yes
	<b>Japan VCCI Compliance</b>	Yes
	<b>KC</b>	Yes
	<b>BSMI</b>	Yes
	<b>CE Marking Compliance</b>	Yes
	<b>BNCI or BELUS</b>	No
	<b>CIT</b>	No
	<b>EAC</b>	Yes
	<b>Saudi Arabian Compliance (ICCP)</b>	Yes
	<b>SABS</b>	Yes
	<b>UKRSERTCOMPUTER</b>	No

19. Configurations of the HP Elite c1030 Chromebook Enterprise that are ENERGY STAR® qualified are identified as HP Elite c1030 Chromebook Enterprise ENERGY STAR on HP websites and on <http://www.energystar.gov>.

20. 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.

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

### DISPLAYS

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

<b>Panel LCD 13.5-in diagonal WUXGA+ (1920 x 1280) BrightView WLED UWVA sRGB 100% NTSC 400 nits eDP 1.4+PSR2 Ultraslim NB2Z</b>	<b>Outline Dimensions (W x H x D)</b>	291.20 x 200.0 (mm) max
	<b>Active Area</b>	284.8896 x 189.9264 (mm)
	<b>Weight</b>	187g max.
	<b>Diagonal Size</b>	13.5 (inch)
	<b>Thickness</b>	2.05 (panel body) / 3.85 (panel+PCB) (mm) max
	<b>Interface</b>	eDP 1.4
	<b>Surface Treatment</b>	BrightView (BV)
	<b>Touch Enabled</b>	None
	<b>Contrast Ratio</b>	1500:1 (typical)
	<b>Refresh Rate</b>	60 Hz
	<b>Brightness</b>	400 nit typical (Panel Only)
	<b>Pixel Resolution</b>	1920 x 1280 (FHD)
	<b>Format of LCD Pixel Arrangement</b>	RGB
	<b>Backlight</b>	LED
	<b>Color Gamut Coverage</b>	sRGB 100%
	<b>Color Depth</b>	8 bits
<b>Viewing Angle</b>	UWVA 85/85/85/85	

<b>Panel LCD 13.5-in diagonal WUXGA+ (1920 x 1280) BrightView WLED UWVA 72% NTSC 1000 nits eDP 1.4+PSR PrivacyG4 NB2Y bent</b>	<b>Outline Dimensions (W x H x D)</b>	290.19 x 201.23 (mm) max
	<b>Active Area</b>	284.89 x 189.93 (mm)
	<b>Weight</b>	240g max.
	<b>Diagonal Size</b>	13.5 (inch)
	<b>Thickness</b>	3.9 (mm) max
	<b>Interface</b>	eDP 1.4
	<b>Surface Treatment</b>	BrightView (BV)
	<b>Touch Enabled</b>	None
	<b>Contrast Ratio</b>	1500:1 (typical)
	<b>Refresh Rate</b>	60Hz
	<b>Brightness</b>	1000 nits
	<b>Pixel Resolution</b>	1920 x 1280 (WUXGA+)
	<b>Format of LCD Pixel Arrangement</b>	RGB
	<b>Backlight</b>	LED
	<b>Color Gamut Coverage</b>	sRGB 100%
	<b>Color Depth</b>	8 bits
<b>Viewing Angle</b>	UWVA 85/85/85/85	

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

<b>Panel LCD 13.5-in WUXGA+ (1920x1280) Anti-glare WLED UWVA sRGB 100percent cg 400nits eDP 1.4+PSR2 ultraslim NB2Z</b>	<b>Outline Dimensions (W x H x D)</b>	291.20 x 200.0 (mm) max
	<b>Active Area</b>	284.8896 x 189.9264 (mm)
	<b>Weight</b>	187g max.
	<b>Diagonal Size</b>	13.5 (inch)
	<b>Thickness</b>	2.05 (panel body) / 3.85 (panel+PCB) (mm) max
	<b>Interface</b>	eDP 1.4
	<b>Surface Treatment</b>	Anti-glare (AG)
	<b>Touch Enabled</b>	None
	<b>Contrast Ratio</b>	1500:1 (typical)
	<b>Refresh Rate</b>	60Hz
	<b>Brightness</b>	400 nit typical (Panel Only)
	<b>Pixel Resolution</b>	1920 x 1280 (FHD)
	<b>Format of LCD Pixel Arrangement</b>	RGB
	<b>Backlight</b>	LED
	<b>Color Gamut Coverage</b>	sRGB 100%
	<b>Color Depth</b>	8 bits
	<b>Viewing Angle</b>	UWVA 85/85/85/85

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

### STORAGE AND DRIVES\*

<b>SSD 128 GB 2230 PCIe NVMe Value</b>	<b>Form Factor</b>	M.2 2230
	<b>Capacity</b>	128 GB
	<b>NAND Type</b>	TLC
	<b>Height</b>	0.09 in (2.3 mm)
	<b>Width</b>	0.87 in (22 mm)
	<b>Interface</b>	PCIe NVMe Gen3X4 or PCIe NVMe Gen3X2
	<b>Maximum Sequential Read</b>	Up to 2100 MB/s
	<b>Maximum Sequential Write</b>	Up to 1200 MB/s
	<b>Logical Blocks</b>	250,069,680
	<b>Operating Temperature</b>	32° to 158°F (0° to 70°C) [ambient temp]
	<b>Features</b>	Pyrite

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<b>SSD 256 GB 2230 PCIe NVMe Value</b>	<b>Form Factor</b>	M.2 2230
	<b>Capacity</b>	256 GB
	<b>NAND Type</b>	TLC
	<b>Height</b>	0.09 in (2.3 mm)
	<b>Width</b>	0.87 in (22 mm)
	<b>Interface</b>	PCIe NVMe Gen3X4 or PCIe NVMe Gen3X2
	<b>Maximum Sequential Read</b>	Up to 2100 MB/s
	<b>Maximum Sequential Write</b>	Up to 1200 MB/s
	<b>Logical Blocks</b>	250,069,680
	<b>Operating Temperature</b>	32° to 158°F (0° to 70°C) [ambient temp]
	<b>Features</b>	Pyrite

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

### NETWORKING/COMMUNICATIONS

<b>Intel Wi-Fi 6<sup>1</sup> AX201 and Bluetooth<sup>®</sup> 5.0 (802.11ax 2x2, non-vPro, supporting gigabit file transfer speeds) non-vPro</b>	<b>Wireless LAN Standards</b>	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac IEEE 802.11ax IEEE 802.11d IEEE 802.11e IEEE 802.11h IEEE 802.11i IEEE 802.11k IEEE 802.11r IEEE 802.11v
	<b>Interoperability</b>	Wi-Fi CERTIFIED™
	<b>Frequency Band</b>	802.11b/g/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
	<b>Data Rates</b>	•802.11b: 1, 2, 5.5, 11 Mbps •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)
	<b>Modulation</b>	Direct Sequence Spread Spectrum OFDM, BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024QAM
	<b>Security<sup>3</sup></b>	•IEEE 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 •IEEE 802.11i •WAPI
	<b>Network Architecture Models</b>	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)
	<b>Roaming</b>	IEEE 802.11 compliant roaming between access points
	<b>Output Power<sup>2</sup></b>	• 802.11b: +18.5dBm minimum • 802.11g: +17.5dBm minimum

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

	<ul style="list-style-type: none"> <li>• 802.11a: +18.5dBm minimum</li> <li>• 802.11n HT20(2.4GHz): +15.5dBm minimum</li> <li>• 802.11n HT40(2.4GHz): +14.5dBm minimum</li> <li>• 802.11n HT20(5GHz): +15.5dBm minimum</li> <li>• 802.11n HT40(5GHz): +14.5dBm minimum</li> <li>• 802.11ac VHT80(5GHz): +11.5dBm minimum</li> <li>• 802.11ac VHT160(5GHz): +11.5dBm minimum</li> <li>• 802.11ax HT40(2.4GHz): +10dBm minimum</li> <li>• 802.11ax VHT160(5GHz): +10dBm minimum</li> </ul>
<b>Power Consumption</b>	<ul style="list-style-type: none"> <li>• Transmit mode: 2.0 W</li> <li>• Receive mode: 1.6 W</li> <li>• Idle mode (PSP) 180 mW (WLAN Associated)</li> <li>• Idle mode: 50 mW (WLAN unassociated)</li> <li>• Connected Standby/Modern Standby: 10 mW</li> <li>• Radio disabled: 8 mW</li> </ul>
<b>Power Management</b>	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
<b>Receiver Sensitivity<sup>4</sup></b>	<ul style="list-style-type: none"> <li>• 802.11b, 1Mbps: -93.5dBm maximum</li> <li>• 802.11b, 11Mbps: -84dBm maximum</li> <li>• 802.11a/g, 6Mbps: -86dBm maximum</li> <li>• 802.11a/g, 54Mbps: -72dBm maximum</li> <li>• 802.11n, MCS07: -67dBm maximum</li> <li>• 802.11n, MCS15: -64dBm maximum</li> <li>• 802.11ac, MCS0: -84dBm maximum</li> <li>• 802.11ac, MCS9: -59dBm maximum</li> <li>• 802.11ax, MCS11(HT40): -59dBm maximum</li> <li>• 802.11ax, MCS11(VHT160): -58.5dBm maximum</li> </ul>
<b>Antenna type</b>	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
<b>Form Factor</b>	PCI-Express M.2 MiniCard with CNVi Interface
<b>Dimensions</b>	<ol style="list-style-type: none"> <li>1. Type 2230: 2.3 x 22.0 x 30.0 mm</li> <li>2. Type 1216: 1.67 x 12.0 x 16.0 mm</li> </ol>
<b>Weight</b>	<ol style="list-style-type: none"> <li>1. Type 2230: 2.8 g</li> <li>2. Type 126: 1.3 g</li> </ol>
<b>Operating Voltage</b>	3.3v +/- 9%
<b>Temperature</b>	Operating: 14° to 158° F (-10° to 70° C) Non-operating: -40° to 176° F (-40° to 80° C)
<b>Humidity</b>	Operating: 10% to 90% (non-condensing) Non-operating: 5% to 95% (non-condensing)
<b>Altitude</b>	Operating: 0 to 10,000 ft (3,048 m) Non-operating: 0 to 50,000 ft (15,240 m)
<b>LED Activity</b>	LED Amber – Radio OFF LED OFF – Radio ON

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

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

<b>Bluetooth Specification</b>	4.0/4.1/4.2/5.0/5.1 Compliant
<b>Frequency Band</b>	2402 to 2480 MHz
<b>Number of Available Channels</b>	Legacy: 0~79 (1 MHz/CH) BLE: 0~39 (2 MHz/CH)
<b>Signaling Data Rate</b>	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 up to 3, 64 kbps, voice channels Legacy: Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5)
<b>Transmit Power</b>	The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 9.5 dBm for BR and EDR.
<b>Power Consumption</b>	Peak (Tx): 330 mW Peak (Rx): 230 mW Selective Suspend: 17 mW
<b>Bluetooth Software Supported</b>	Microsoft Windows Bluetooth Software
<b>Link Topology</b>	
<b>Power Management</b>	Microsoft Windows ACPI, and USB Bus Support
<b>Certifications</b>	FCC (47 CFR) Part 15C, Section 15.247 & 15.249
<b>Power Management Certifications</b>	ETS 300 328, ETS 300 826 Low Voltage Directive IEC950 UL, CSA, and CE Mark
<b>Bluetooth Profiles Supported</b>	BT4.1-ESR 5/6/7 Compliance LE Link Layer Ping LE Dual Mode LE Link Layer LE Low Duty Cycle Directed Advertising LE L2CAP Connection Oriented Channels Train Nudging & Interlaced Scan BT4.2 ESR08 Compliance LE Secure Connection- Basic/Full LE Privacy 1.2 –Link Layer Privacy LE Privacy 1.2 –Extended Scanner Filter Policies LE Data Packet Length Extension FAX Profile (FAX) Basic Imaging Profile (BIP)2 Headset Profile (HSP) Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP)

1. Wireless access point and internet service required and sold separately. Availability of public wireless access points limited.  
1. 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.



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

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).

#### Intel® XMM™ 7360 LTE-Advanced CAT9<sup>1</sup>

<b>Technology/Operating bands</b>	FDD LTE: 2100 (Band 1), 1900 (Band 2), 1800 (Band 3), 1700/2100 (Band 4), 850 (Band 5), 2600 (Band 7), 900 (Band 8), 1400 (Band 11), 700 (Band 12 lower), 700 (Band 13 upper), 700 (Band 17 lower), 850 (Band 18 lower), 850 (Band 19 upper), 800 (Band 20), 1400 (Band 21), 850 (Band 26), 700 (Band 28), 700 (Band 29 RX only), 2300 (Band 30), 1700/2100 (Band 66). TDD LTE: 2600 (Band 38), 1900 (Band 39), 2400 (Band 40), 2500 (Band 41). HSPA+: 2100 (Band 1), 1900 (Band 2), 1700/2100 (Band 4), 850 (Band 5), 900 (Band 8) MHz
<b>Wireless protocol standards</b>	3GPP Release 11 LTE Specification CAT.9, DL 60MHz BW throughput up to 450Mbps; UL 20MHz throughput up to 50Mbps WCDMA R99, 3GPP Release 5, 6, 7 and 8 UMTS Specification
<b>GPS</b>	Standalone, A-GPS (MS-A, MS-B)
<b>GPS bands</b>	1575.42 MHz ± 1.023 MHz, GLONASS 1596-1607MHz, Beidou 1561.098 MHz
<b>Maximum data rates</b>	LTE: 450 Mbps (Download), 50 Mbps (Upload) DC-HSPA+: 42 Mbps (Download), 5.76 Mbps (Upload) HSPA+: 21Mbps (Download), 5.76 Mbps (Upload)
<b>Maximum output power</b>	LTE: 1,200 mA (peak); 900 mA (average) HSPA+: 1,100 mA (peak); 800 mA (average)
<b>Maximum power consumption</b>	LTE: 1,200 mA (peak); 900 mA (average) HSPA+: 1,100 mA (peak); 800 mA (average)
<b>Form Factor</b>	M.2, 3042-S3 Key B
<b>Weight</b>	5.8 g
<b>Dimensions (Length x Width x Thickness)</b>	42 x 30 x 2.3 mm

1. Mobile Broadband is an optional feature. Connection requires wireless data service contract, network support, and is not available in all areas. Contact service provider to determine the coverage area and availability. Connection speeds will vary due to location, environment, network conditions, and other factors. 4G LTE not available on all products or in all countries.

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

### POWER

<b>65 W PD Adapter+G6</b>	<b>Dimensions (H x W x D)</b>	3.54 x 2.0 x 1.12 in (9.0 x 5.1 X 2.85 cm)	
	<b>Weight</b>	0.51 lbs (235 g)	
	<b>Input</b>	100 to 240 VAC	
		<b>Input Efficiency</b>	81.5% min at 115 Vac/ 230Vac @ 5V/3A 86.7% min at 115 Vac/ 230Vac @ 9V/3A 88% min at 115 Vac/ 230Vac @ 12V/5A 89% min at 115 Vac/ 230Vac @ 20V/3.25A 89% min at 115 Vac/ 230Vac @ 15V/4.33A
		<b>Input frequency range</b>	47 ~ 63 Hz
		<b>Input AC current</b>	1.6 A at 90 VAC and maximum load
	<b>Output</b>	<b>Output power</b>	65 W
		<b>DC output</b>	5V/9V/12V/15V/20V
		<b>Hold-up time</b>	5ms at 115 Vac input by each output voltage
		<b>Output current limit</b>	8.0 A Maximum
		<b>Over voltage protection</b>	5V: 7.25V@OVP 9V: 13.05V@OVP 12V: 15.8V@OVP 15V: 21.75V@OVP 20V: 29V@OVP
	<b>Connector</b>	USB Type-C®	
	<b>Environmental Design</b>	<b>Operating temperature</b>	32°F to 95°F (0°to 35°C)
<b>Non-operating (storage) temperature</b>		-4°F to 185°F (-20°C to 85°C)	
<b>Altitude</b>		0 to 16,400 ft (0 to 5000m)	
<b>Humidity</b>		20% to 95%	
<b>Storage Humidity</b>		10% to 95%	
<b>EMI and Safety Certifications</b>	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.		

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

<b>45 W PD Adapter</b>	<b>Dimensions (H x W x D)</b>	3.74 x 1.69 x 1.08 in (9.5 x 4.3 x 2.75 cm)	
	<b>Weight</b>	0.45 lbs (200 g)	
	<b>Input</b>	100 to 240 VAC	
		<b>Input Efficiency</b>	81.5% min at 115 Vac/ 230Vac @ 5V/3A 86.7% min at 115 Vac/ 230Vac @ 9V/3A 87.4% min at 115 Vac/ 230Vac @ 12V/3A 87.8% min at 115 Vac/ 230Vac @ 15V/3A
		<b>Input frequency range</b>	47 ~ 63 Hz
		<b>Input AC current</b>	1.4 A at 90 VAC and maximum load
	<b>Output</b>	<b>Output power</b>	45 W
		<b>DC output</b>	5V/9V/12V/15V
		<b>Hold-up time</b>	5ms at 115 Vac input by each output voltage
		<b>Output current limit</b>	5.0 A Maximum
		<b>Over voltage protection</b>	5V: 7.25V@OVP 9V: 13.05V@OVP 12V: 16.0V@OVP 15V: 21.75V@OVP
	<b>Connector</b>		USB Type-C®
	<b>Environmental Design</b>	<b>Operating temperature</b>	32°F to 95°F (0°to 35°C)
		<b>Non-operating (storage) temperature</b>	-4°F to 185°F (-20°C to 85°C)
		<b>Altitude</b>	0 to 16,400 ft (0 to 5000m)
	<b>Humidity</b>	20% to 95%	
	<b>Storage Humidity</b>	10% to 95%	
<b>EMI and Safety Certifications</b>		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.	

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

Category	Description	Part Number
<b>Cases</b>	HP Prelude Pro Recycle Backpack	1X644AA
	HP Prelude Pro Recycle Top Load	1X645AA
	HP 13.3 Business Sleeve	2UW00AA
	HP Prelude Backpack 15.6	2MW63AA
<b>Docking</b>	HP Thunderbolt Dock 120W G2	2UK37AA
	HP USB-C®/A Universal Dock G2	5TW13AA
	HP USB-C® Mini Dock	1PM64AA
	HP USB-C® Travel Dock G2	7PJ38AA
<b>Input/output</b>	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
	HP USB to RJ45 Adapter	N7P47AA
	HP USB-C® to VGA Adapter	N9K76AA
HP Rechargeable USI pen	235N6AA	
<b>Power</b>	HP 45W USB-C® G2 Power Adapter	1MZ01AA
	65W USB-C® Slim Power adapter	3PN48AA
	HP Notebook USB-C® Power Bank	2NA10AA
<b>Storage</b>	HP External USB Optical Drive	F2B56AA
<b>Security</b>	HP Nano Keyed Cable Lock	1AJ39AA
	HP Sure Key Cable Lock	6UW42AA

### Summary of Changes

<b>Date of change:</b>	<b>Version History:</b>		<b>Description of change:</b>
February 3, 2021	V1 to V2		Display section

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