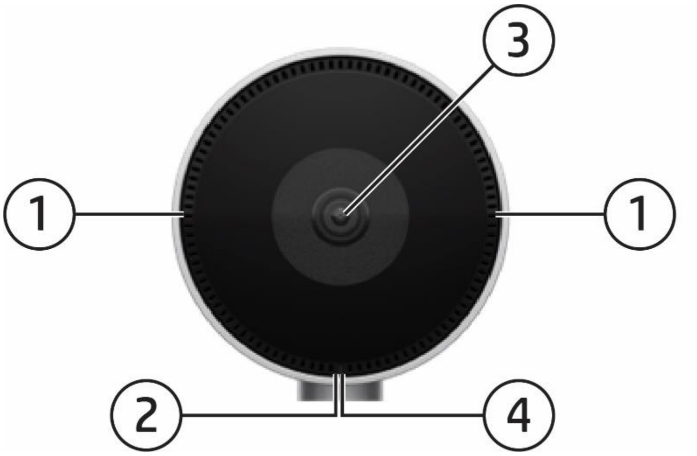
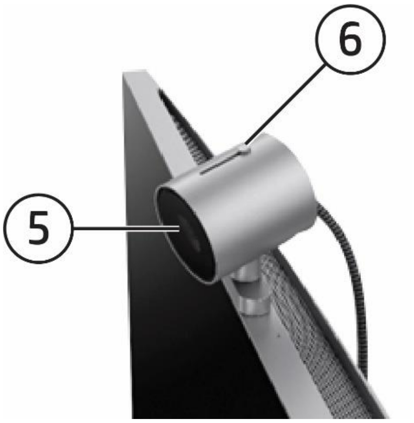
HP 34” All-in-One Desktop PC

1. Camera
2. Speakers (top and bottom firing)
3. Wireless Charger (in base)

16MP (4MP Binning) Webcam + Temporal Noise Reduction + IR Sensor

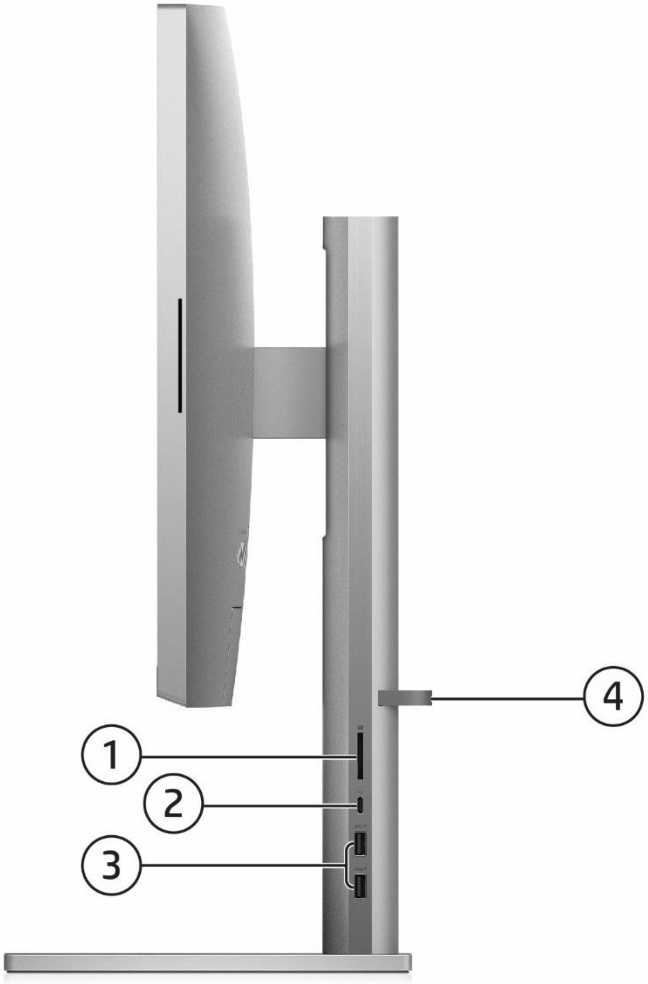




1. Dual microphones
2. Webcam light
3. IR sensor
4. IR light

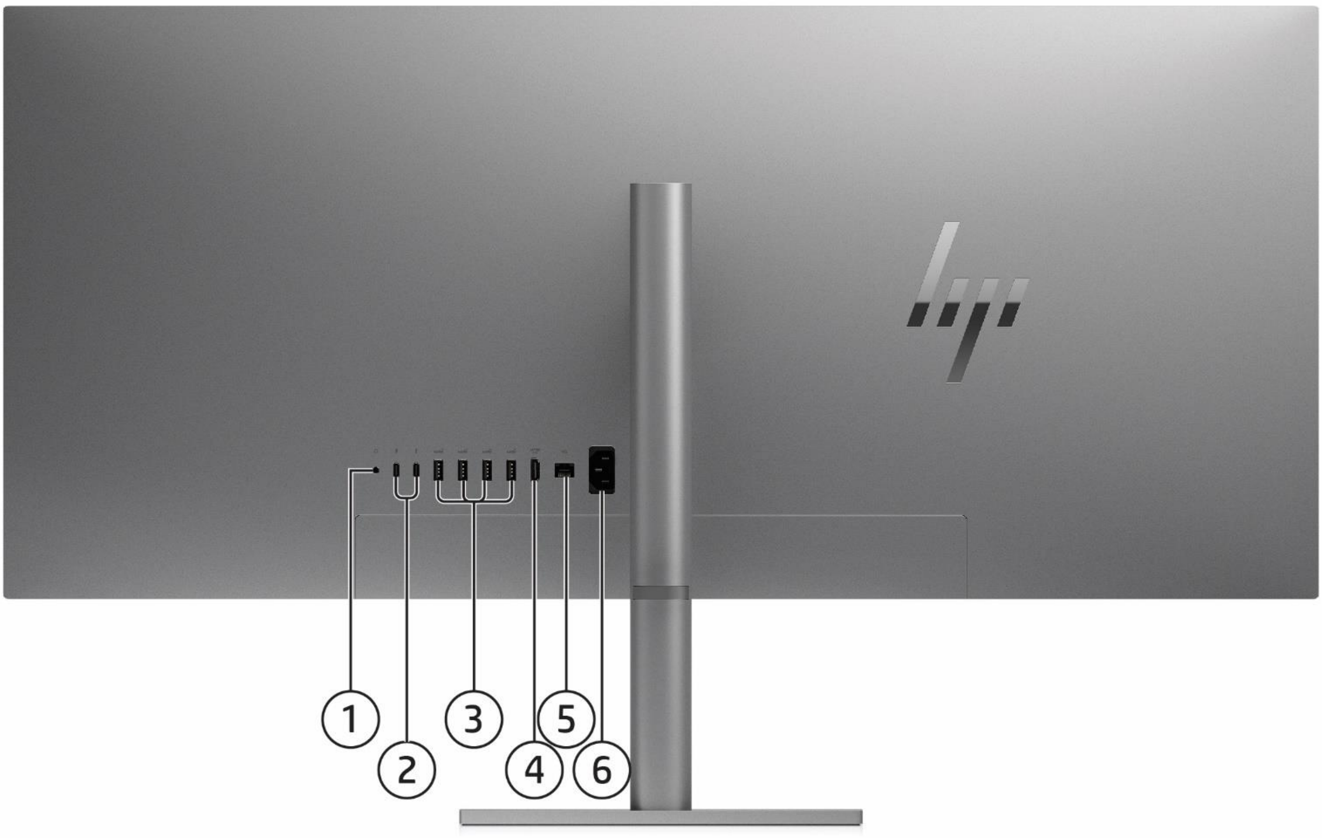
5. Privacy shutter
6. Shutter control switch

HP 34” All-in-One Desktop PC



1. SD memory card reader
2. Type-C® SuperSpeed USB 5Gbps signaling rate port (charge support up to (5V/3A)
3. 2x SuperSpeed USB Type-A 5Gbps signaling rate (Battery Charging 1.2)
4. Cable Management Clip

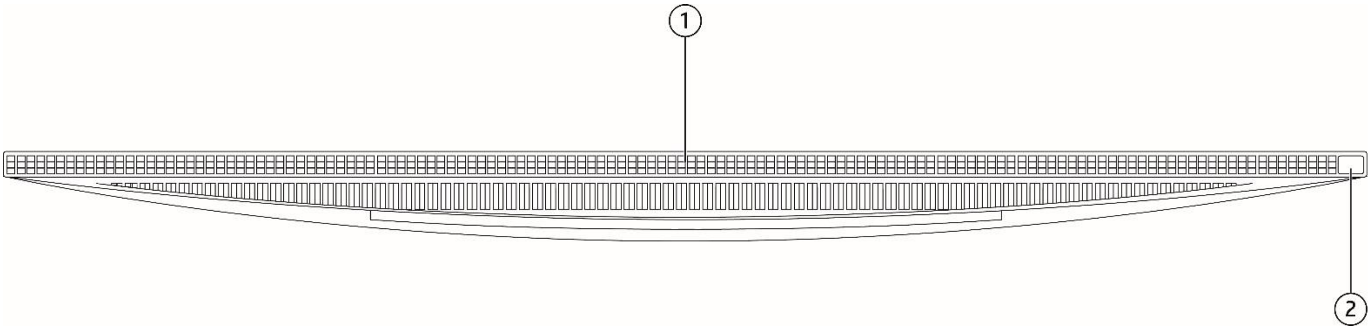
HP 34” All-in-One Desktop PC



Rear components and rear ports

1. 1x headphone/microphone combo
2. 2x Thunderbolt™ 4 with USB™ Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4, HP Sleep and Charge)
3. 4x SuperSpeed USB Type-A 10Gbps signaling rate
4. 1x HDMI 2.0/2.1 out
5. RJ-45 network connector/jack
6. Power Connector

HP 34” All-in-One Desktop PC



Bottom

1. Speaker (bottom)
2. Dual-State power button

Not shown

Slots

(1) internal M.2 PCIe x1 connector for optional wireless NIC
(2) internal M.2 PCIe x4 connector for optional m.2 SSD

AT A GLANCE

- HP developed and engineered UEFI V2.8BBIOS supporting security, manageability, and software image stability
- Intel® H670 chipset supporting Intel® 12th generation Core™ processors, featuring integrated Intel® UHD Graphics and (vPro not supported) (available with Core i5 i7 and i9 processors)
- 34” diagonal flat 21:9 WUHD (5120 × 2160), IPS, three-sided micro-edge, anti-reflection, 500 nits, 98% DCI-P3, non-touch
- Support for three M.2 Storage slots (up to 4TB total [2x2TB])
- Intel® UHD 770 graphics
- Discrete Graphics: NVIDIA® GeForce RTX™ 3050 (4 GB GDDR6X dedicated) with LHR orNVIDIA® GeForce RTX™ 3060 (6 GB GDDR6X dedicated) with LHR
- Internal Power Supply: 330W 80 Plus Platinum EPA 92
- Realtek® Ethernet Connection Integrated Gigabit Ethernet LAN (RTL8111HSH-CG)
- Intel® Wi-Fi 6AX201 802.11ax 2x2 with Bluetooth® 5 M.2 Combo Card
- DDR5 Synchronous Dynamic Random Access Memory (SDRAM) (Transfer rates up to 4000 MT/s)
- Support for three additional monitor via HDMI and Type-C® USB in alternate mode.
- Audio by Bang & Olufsen
- TÜV Rheinland Certified Low Blue Light (Software Solution)
- Qi-wireless charging in the stand base
- Up to two (2) magnetically attachable 16MP (4MP Binned) Temporal Noise Reducing webcam
- IR Sensor supporting Windows Hello
- Enhanced Security with HP Sure Sense and HP Sure Click
- Enhanced by HP Presence
- Adjustable Height Stand
- ENERGY STAR® certified. EPEAT® registered where applicable. 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.
- CCC, CECP and SEPA Certified
- PC chassis and all internal components and modules are manufactured with low halogen content[4]
- Protected by HP Services, including limited warranties up to 1-1-1 (terms and conditions vary by country; certain restrictions and exclusions apply); Care Packs available with up to 3 years Next Business Day Onsite Hardware Support
- Compliance with CE (Class B) / FCC (Class B) / UL (UL62368-1) / CSA (CSA C22.2 No. 62368-1) / ICES-003 / CCC / VCCI (Class B) / KCC (Class B)

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

OPERATING SYSTEM

Preinstalled	Windows 11 Home & Pro

1. Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows is automatically updated and enabled. High speed internet and Microsoft account required. ISP fees may apply and additional requirements may apply over time for updates.
See http://www.windows.com.

CHIPSET

Intel® H670

Features

PROCESSORS

Intel® 12th Generation Core™ Processors
Intel® Core™ i5-12500 processor with Intel® UHD Graphics 770 (3.0GHz, up to 4.6 GHz with Intel Turbo Boost Technology[1], 18 MB cache, 6 cores) 65W[2].
Intel® Core™ i7-12700 processor with Intel® UHD Graphics 770 (2.1 GHz, up to 4.9 GHz with Intel® Turbo Boost Technology[1], 25 MB L3 cache, 12 cores) 65W[2]
Intel® Core™ i9-12900 processor with Intel® UHD Graphics 770 (2.4GHz, up to 5.1 GHz with Intel Turbo Boost Technology[1], 30 MB cache, 16 cores) 65W[2].

1. Intel® Turbo Boost technology requires a PC with a processor with Intel Turbo Boost capability. Intel Turbo Boost performance varies depending on hardware, software and overall system. See http://www.intel.com/technology/turboboost for more information.
2. Multi-core 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 configuration measurement of higher performance.
http://intel.com/vpro.

GRAPHICS

Integrated Intel® Graphics

Intel® UHD Graphics 770 (integrated in 12th gen Corei5-12500T and above)

Adapters and Cables

HP USB to Serial Port Adapter
HP USB-C to HDMI Adapter
HP USB-C to DisplayPort Adapter
HP HDMI Standard Cable Kit (HDMI)

STORAGE

M.2 PCIe NVMe Solid State Drives (SSD)

256GB* M.2 2280 PCIe NVMe SSD
256GB* M.2 2280 PCIe NVMe Three Layer Cell SSD
512GB* M.2 2280 PCIe NVMe SSD
512GB* M.2 2280 PCIe NVMe Three Layer Cell SSD
1TB* M.2 2280 PCIe NVMe SSD
1TB* M.2 2280 PCIe NVMe Three Layer Cell SSD
2TB* M.2 2280 PCIe NVMe SSD
2TB* M.2 2280 PCIe NVMe Three Layer Cell SSD

NOTE*: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows) of system disk is reserved for the system recovery software

Media Card Reader

SD 4.0 with 3-in-1 Interface (Supports SD, SDXC, SDHC, UHS-I, UHS-II)

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows) of system disk is reserved for the system recovery software.

MEMORY

Memory Type

DDR5-4800 (Transfer rates up to 4000 MT/s), Max 128 GB, SO-DIMM

Memory Configuration

8GB x 2
16GB x 2
8GB x 4
16GB x 4
32GB x 2
32GB x 4

NOTE: 2 DIMMs per channel requires platform design with four physical DIMM slots. 2 DIMMS per channel is supported when channel is populated with the same DIMM part number. Symmetric configurations are required for 2 DIMMs per channel physical configuration. Population rule: ensure furthest DIMM from processor is populated.
NOTE: All memory slots are customer accessible / upgradeable.

Features

NETWORKING/COMMUNICATIONS

Ethernet (RJ-45)

Integrated Gigabit Ethernet LAN (RTL8111HSH-CG)

Wireless

Intel® Wi-Fi 6[1] AX201 802.11ax 2x2 with Bluetooth® 5 M.2 Combo Card

1. Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6 (802.11ax) is backwards compatible with prior 802.11 specs.

KEYBOARDS AND POINTING DEVICES

Keyboard and Mouse Combo

HP 915 Wireless Keyboard and Mouse

SECURITY

USB enable / disable (via BIOS)
Side IO USB enable / disable (via BIOS)
boot control
Power-on password (via BIOS)
Setup password (via BIOS)

PORTS

I/O Ports – Internal Ports

M.2 PCIe[1]	(2) M.2 2280 for NVMe SSD storage

Standard User Accessible Ports

Type-A SuperSpeed USB 5 Gbps signaling rate port	2 (side)
Type-A SuperSpeed USB 10 Gbps signaling rate port	4 (rear)
Thunderbolt™ 4 with USB4™ Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4, HP Sleep and Charge)	2 (rear)
SuperSpeed USB Type-C® 5Gbps signaling rate	1 (side)
Video	2 USB Type-C® with alt mode Display Port 1.4a and ~~15~~18W output) (rear) 1 HDMI 2.0/2.1 out (rear)
Audio	1 CTIA/OMTP UAJ (side)

Bays

SD Card Reader	1

USB SPECIFICATION AND MARKETING NAME MAPPING TABLE

Marketing Name	Technical Terminology
Hi-Speed USB 480Mbps signaling rate	USB 2.0
SuperSpeed USB 5Gbps signaling rate	USB 3.2 Gen 1
SuperSpeed USB 10Gbps signaling rate	USB 3.2 Gen 2
SuperSpeed USB 20Gbps signaling rate	USB 3.2 Gen 2x2

SOFTWARE COMPONENTS AND APPLICATIONS WITH WINDOWS

Software
HP Connection Optimizer

Manageability Features
HP Driver Packs (download)

Security Management
HP Wolf Security for Business[1]:
HP Sure Click[2]
HP Sure Sense[3]

1. HP Wolf Security for Business requires Windows 10 or higher, includes various HP security features and is available on HP Pro, Elite, RPOS and Workstation products. See product details for included security features and OS requirement.
2. HP Sure Click requires Windows 10 or 11 Pro or higher. See https://bit.ly/2PrLT6A_SureClick for complete details.
3. HP Sure Sense is available on select HP PCs and is not available with Windows10 Home.

UNIT ENVIRONMENT AND OPERATING CONDITIONS

ENERGY STAR® certified models available

ENERGY STAR® certified. EPEAT® 2019 registered where applicable. 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.
Low halogen (chassis, all internal components and modules)[1]
TAA compliant models available

[1] External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.

UNIT ENVIRONMENT AND OPERATING CONDITIONS

General Unit Operating Guidelines

- Keep the computer away from excessive moisture, direct moisture and the extremes of heat and cold, to ensure that unit is operated within the specified operating range.
- Leave a 10.2 cm (4 in) clearance on all vented sides of the computer to permit the required airflow.
- Never restrict airflow into the computer by blocking any vents or air intakes.
- Do not stack computers on top of each other or place computers so near each other that they are subject to each other's re-circulated or preheated air.
- Occasionally clean the air vents on the front, back, and any other vented side of the computer. Lint, dust and other foreign matter can block the vents and limit the airflow.
- If the computer is to be operated within a separate enclosure, intake and exhaust ventilation must be provided on the enclosure, and the same operating guidelines listed above will still apply.

Temperature Range	Operating: 50° to 95° F (10° to 35° C)[2] Non-operating: -22° to 149° F (-30° to 65° C)
Relative Humidity	Operating: 10% to 90% (non-condensing at ambient) Non-operating: 5% to 95% (non-condensing at ambient)
Maximum Altitude (unpressurized)	Operating: 5000m Non-operating: 50000ft (15240 m)

[2] Operating temperature is de-rated 1.0 deg C per 300 m (1000 ft) to 3000 m (10,000 ft) above sea level, no direct sustained sunlight. Maximum rate of change is 10 deg C/Hr. The upper limit may be limited by the type and number of options installed.

ENVIRONMENTAL & INDUSTRY

Eco-Label Certifications & declarations	This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks: • IT ECO declaration • US ENERGY STAR® • US Federal Energy Management Program (FEMP) • 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. • Korea Eco-label • Japan PC Green label		
System Configuration	The configuration used for the Energy Consumption and Declared Noise Emissions data for the All-in-One PC model is based on a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.		
Energy Consumption (in accordance with US ENERGY STAR® test method)	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Short idle)	14.97 watt	15.06 watt	14.79 watt
Normal Operation (Long idle)	2.36 watt	2.45 watt	2.18 watt
Sleep	2.4 watt	2.42 watt	2.37 watt
Off	0.97 watt	0.98 watt	0.94 watt
	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.		
Heat Dissipation*	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Short idle)	51.0477 BTU/hr	51.3546 BTU/hr	50.4339 BTU/hr
Normal Operation (Long idle)	8.0476 BTU/hr	8.3545 BTU/hr	7.4338 BTU/hr
Sleep	8.184 BTU/hr	8.2522 BTU/hr	8.0817 BTU/hr
Off	3.3077 BTU/hr	3.3418 BTU/hr	3.2054 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 ISO 9296)	Sound Power (L_{WAd}, bels)	Sound Pressure (L_{pAm}, decibels)	
Typically Configured – Idle	2.5	13.6	
Fixed Disk – Random writes	2.5	13.6	
Longevity and Upgrading	This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the product may include: • 6 USB ports • 2 memory slots • 1 Mini PCIe half-length slot • 1 MXM 3.0 Type A - 35W slot • 1 mSATA slot		

	• 1 2.5" internal bay supporting up to Two 2.5" hard drives (HDD/SSD/SED/SSHD) • 1 5.25" external supporting optical drive Spare parts are available throughout the warranty period and or for up to 3 years after the end of production.		
Batteries	This battery(s) in this product comply with EU Directive 2006/66/EC Batteries used in the product do not contain: Mercury greater the1ppm by weight Cadmium greater than 20ppm by weight Battery size: CR2032 (coin cell) Battery type: Lithium		
Additional Information	• 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). • ENERGY STAR® certified. EPEAT® 2019 registered where applicable. 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. • Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043. • This product contains 51.7% post-consumer recycled plastic (by wt.) *according to IEEE 1680.1-2018 standard, criterion 4.2.1.1.* • This product is 97.8% recycle-able when properly disposed of at end of life.		
Packaging Materials	**External:**	PAPER/Corrugated	1.488 g
	Internal:	PLASTIC/Polyethylene Expanded - EPE	1.052 g
	The plastic packaging material contains at least xx% recycled content.		
	The corrugated paper packaging materials contains at least xx% recycled content.		
RoHS Compliance	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. 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 Usage	This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/gse.pdf): • Asbestos • Certain Azo Colorants • Certain Brominated Flame Retardants – may not be used as flame retardants in plastics • Cadmium		

	• Chlorinated Hydrocarbons • Chlorinated Paraffins • Formaldehyde • Halogenated Diphenyl Methanes • Lead carbonates and sulfates • Lead and Lead compounds • Mercuric Oxide Batteries • Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user. • Ozone Depleting Substances • Polybrominated Biphenyls (PBBs) • Polybrominated Biphenyl Ethers (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	HP follows these guidelines to decrease the environmental impact of product packaging: • Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials. • Eliminate the use of ozone-depleting substances (ODS) in packaging materials. • Design packaging materials for ease of disassembly. • Maximize the use of post-consumer recycled content materials in packaging materials. • Use readily recyclable packaging materials such as paper and corrugated materials. • Reduce size and weight of packages to improve transportation fuel efficiency. • Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.
End-of-life Management and Recycling	HP Inc. offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/go/reuse-recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/recyclers. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment. 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 ISO 14001 certificates: http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/PC_GBU_Product_Design_ISO_14K_Certificate.pdf and http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf

SERVICE AND SUPPORT

On-site Warranty[1]: One-year (1-1-1) limited warranty delivers three years of on-site, next business day[2] service for parts and labor support. Service offers terms up to 3 years by choosing an optional HP Care Pack. To choose the right level of service for your HP product, visit HP Care Pack Central: http://www.hp.com/go/cpc.[3]

1. Terms and conditions may vary by country. Certain restrictions and exclusions apply. Other warranty variations may be offered in your region.
2. On-site service may be provided pursuant to a service contract between HP and an authorized HP third-party provider and is not available in certain countries. Global service response times are based on commercially reasonable best effort and may vary by country.
3. 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 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.

CERTIFICATION AND COMPLIANCE

Energy Efficiency Compliance

ENERGY STAR® certified. EPEAT® 2019 registered where applicable. EPEAT ® registration varies by country. See http://www.epeat.net for registration status by country. According to IEEE 1680.1-2018.

PROCESSORS

Intel® 12th Generation Core™ Processors

- Support for configuration of Intel ME 16.0 capabilities
- No reset after provisioning
- Profile Editor and Profile Editor Plugin Interface

DISPLAY PANEL SPECIFICATIONS

34" diagonal IPS widescreen WLED backlit LCD (5120x2160)

Type	IPS WLED Backlit LCD
Active area (mm)	795.648 x 335.664
Native resolution (HxV)	5120 x 2160
Refresh rate	60 Hz @ 5120 x 2160
Aspect ratio	21:9
Pixel pitch (HxV)(mm)	0.0518 x 0.1554
Contrast ratio	1200:1
Brightness*	500nits
Viewing angle (HxV)	178° x 178°
Backlight lamp life (to half brightness)	30,000 hours minimum
Color support	Up to 1.07 billion colors with 10 Bit(8 Bit + FRC)
Color gamut	DCI-P3 99%
Anti-glare	AR (1.5% Reflectivity, 2% Haze)
Response time	14ms
Default color temperature	Warm (6500K)

Adjustable Height Stand:	Height - Vertical/Landscape Adjustment	100mm (±2 mm)
	Portrait Adjustment	No portrait
	Tilt Angle	-3.5°(±1.5°)to +18.5° (±1.5°) in landscape and portrait
	Rotation (Swivel)	No Rotation (Swivel)
	Pivot	No pivot

GRAPHICS

Discrete Graphics	**NVIDIA® GeForce RTX™ 3050 or NVIDIA® GeForce RTX™ 3060**
VGA Controller	Intel IGP for Integrated panel with NVIDIA MS-Hybrid
Type-C® USB x2 in alternate mode	Multimode capable; supports HDCP, Display Port Audio (2 streams), HBR3 link rates and Multi-Stream Technology for a maximum of 4 displays (including the integrated panel and all attached displays)
HDMI-Out	HDMI 2.0/2.1
Memory	The actual amount of maximum graphics memory can be >4GB. System memory is allocated for graphics as needed using Intel's Dynamic Video Memory Technology (DVMT), to provide an optimal balance between graphics and system memory use.
Maximum Color Depth	up to 10 bits/color
Graphics/Video API Support	HEVC 10b Enc/Dec HW VP9 10b Dec HW HDR Rec. 2020 DX12
Max. Resolution (HDMI 2.1)	7680 x 4320@60Hz with DSC
Max. Resolution (Type-C® DP1.4a)	7680 x 4320@60Hz with DSC

STORAGE

256GB M.2 2280 PCIe NVMe SSD

Drive Weight	< 10g
Capacity	256 GB
Height	2.3 mm
Length	80 mm
Width	22 mm
Interface	PCIe NVMe
Maximum Sequential Read	3200 MB/s ±20%
Maximum Sequential Write	2000 MB/s ±20%
Logical Blocks	500,118,192
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	TRIM; L1.2

NOTE: For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows) is reserved for system recovery software.

256GB M.2 2280 PCIe NVMe Three Layer Cell SSD

Drive Weight	< 10g
Capacity	256 GB
Height	2.3 mm
Length	80 mm
Width	22 mm
Interface	PCIE Gen4x4
Maximum Sequential Read	4000 MB/s ±20%
Maximum Sequential Write	2000 MB/s ±20%
Logical Blocks	500,118,192
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	TRIM; L1.2; Pyrite 2.0

NOTE: For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows) is reserved for system recovery software.

512GB M.2 2280 PCIe NVMe SSD

Drive Weight	< 10g
Capacity	512 GB
Height	2.3 mm
Length	80 mm
Width	22 mm
Interface	PCIe NVMe
Maximum Sequential Read	3200 MB/s ±20%
Maximum Sequential Write	3200 MB/s ±20%
Logical Blocks	1,000,215,216
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]

Features	TRIM; L1.2

NOTE: For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 35GB (for Windows) is reserved for system recovery software.

512GB M.2 2280 PCIe NVMe Three Layer Cell SSD

Drive Weight	< 10g
Capacity	512 GB
Height	2.3 mm
Length	80 mm
Width	22 mm
Interface	PCIE Gen4x4
Maximum Sequential Read	6400 MB/s ±20%
Maximum Sequential Write	3500 MB/s ±20%
Logical Blocks	1,000,215,216
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	TRIM; L1.2; Pyrite 2.0

NOTE: For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 35GB (for Windows) is reserved for system recovery software.

1TB M.2 2280 PCIe NVMe SSD

Drive Weight	< 10g
Capacity	1 TB
Height	2.3 mm
Length	80 mm
Width	22 mm
Interface	PCIe NVMe
Maximum Sequential Read	3200 MB/s ±20%
Maximum Sequential Write	3200 MB/s ±20%
Logical Blocks	2,000,409,264
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	TRIM; L1.2

NOTE: For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 35GB (for Windows) is reserved for system recovery software.

1TB M.2 2280 PCIe NVMe Three Layer Cell SSD

Drive Weight	< 10g
Capacity	1 TB
Height	2.3 mm
Length	80 mm
Width	22 mm
Interface	PCIE Gen4x4
Maximum Sequential Read	6400 MB/s ±20%
Maximum Sequential Write	5000 MB/s ±20%

Technical Specifications – Storage

Logical Blocks	2,000,409,264
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	TRIM; L1.2; Pyrite 2.0

NOTE: For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 35GB (for Windows) is reserved for system recovery software.

2TB M.2 2280 PCIe NVMe Three Layer Cell SSD

Drive Weight	< 10g
Capacity	2 TB
Height	2.3 mm
Length	80 mm
Width	22 mm
Interface	PCIE Gen4x4
Maximum Sequential Read	6400 MB/s ±20%
Maximum Sequential Write	5000 MB/s ±20%
Logical Blocks	4,000,797,360
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	TRIM; L1.2; Pyrite 2.0

NOTE: For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 35GB (for Windows) is reserved for system recovery software.

NETWORKING AND COMMUNICATIONS

Intel® I225-LM 2.5 Gigabit Network Connection LOM (non-vPro)	
Connector	RJ-45
System Interface	PCI(Intel proprietary) + SMBus
Data rates supported	1. 10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14) 2. 100 Mbit/s operation (100BASE-TX; IEEE 802.3u; IEEE 802.3 clauses 21-30) 3. 1000 Mbit/s operation (1000BASE-T; IEEE 802.3ab; IEEE 802.3 clauses 40) 4. 2.5 Gbit/s operation(2.5GBASE-T; IEEE 802.3bz Clause 126) 5. Auto-Negotiation (Automatic Speed Selection) Full Duplex Operation at all Speeds, Half Duplex operation at 10, 100 & 1000 Mbit/s
IEEE Compliance	IEEE 802.1p QoS (Quality of Service) Support IEEE 802.1q VLAN support IEEE 802.3x Flow Control (IEEE 802.3 clauses 31-32; configurable) IEEE 802.3az EEE (Energy Efficient Ethernet) IEEE 802.3i 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3ab 1000BAE-T IEEE 802.3bz 2.5GBASE-T
Performance	TCP/IP/UDP Checksum Offload (configurable) Protocol Offload (ARP & NS) Large send offload and Giant send offload Receiving Side Scaling(Hash Mode Only) Jumbo Frame 9K
Power consumption	Cable Disconnetion: 25mW 100Mbps Full Run: 450mW 1000bp Full Run: 1000mW WoL Enable(S3/S4/S5): 50mW WoL Disable(S3/S4/S5): 25mW
Power Management	ACPI compliant – multiple power modes Situation-sensitive features reduce power consumption Advanced link down power saving for reducing link down power consumption
Management Interface	Auto MDI/MDIX Crossover cable detection
IT Manageability	Wake-on-LAN from modern standby or sleep state (Magic Packet and Microsoft Wake-Up Frame); Wake-on-LAN from off (Magic Packet only) PXE 2.1 Remote Boot Statistics Gathering (SNMP MIB II, Ethernet-like MIB, Ethernet MIB (802.3x, clause 30)) Comprehensive diagnostic and configuration software suite Virtual Cable Doctor for Ethernet cable status
Security & Manageability	Intel® non-vPro™ support with appropriate Intel® chipset components

Technical Specifications – Networking and Communications

Intel Wi-Fi 6 AX201[1] + BT5 (802.11ax 2x2, non-vPro, supporting gigabit file transfer speeds[2]) non-vPro	
Wireless LAN Standards	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
Interoperability	Features Wi-Fi 6 technology
Frequency Band	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
Data Rates	• 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)
Modulation	Direct Sequence Spread Spectrum OFDM, BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024QAM
Security[3]	• 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
Network Architecture Models	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)
Roaming	IEEE 802.11 compliant roaming between access points
Output Power[4]	• 802.11b: +18.5dBm minimum • 802.11g: +17.5dBm minimum • 802.11a: +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

Technical Specifications – Networking and Communications

	• Idle mode (PSP) 180 mW (WLAN Associated) • Idle mode 50 mW (WLAN unassociated) • Connected Standby 10mW • Radio disabled 8 mW	
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode	
Receiver Sensitivity[5]	•802.11b, 1Mbps: -93.5dBm maximum •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 with CNVi Interface	
Dimensions	1. Type 2230: 2.3 x 22.0 x 30.0 mm 2. Type 1216: 1.67 x 12.0 x 16.0 mm	
Weight	1. Type 2230: 2.8g 2. Type 126: 1.3g	
Operating Voltage	3.3v +/- 9%	
Temperature	Operating Non-operating	14° to 158° F (–10° to 70° C) –40° to 176° F (–40° to 80° C)
Humidity	Operating Non-operating	10% to 90% (non-condensing) 5% to 95% (non-condensing)
Altitude	Operating Non-operating	0 to 10,000 ft (3,048 m) 0 to 50,000 ft (15,240 m)
LED Activity	LED Amber – Radio OFF; LED Off – Radio ON	

HP Integrated Module with Bluetoothâ 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 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 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)
Transmit Power	The Bluetoothâ component shall operate as a Class II Bluetoothâ device with a maximum transmit power of +9.5 dBm for BR and EDR.
Power Consumption	Peak (Tx) 330 mW Peak (Rx) 230 mW Selective Suspend 17 mW
Bluetooth® Software Supported Link Topology	Microsoft Windows Bluetoothâ Software
Power Management	Microsoft Windows ACPI, and USB Bus Support

Technical Specifications – Networking and Communications

Certifications	FCC (47 CFR) Part 15C, Section 15.247 & 15.249 ETS 300 328, ETS 300 826 Low Voltage Directive IEC60950 UL, CSA, and CE Mark
Bluetooth Profiles Supported	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. Wi-Fi 6 (802.11ax) is backwards compatible with prior 802.11 specs.
2. Wi-Fi 6 is designed to support gigabit data rate when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 80MHz and higher channels.
3. Check latest software/driver release for updates on supported security features.
4. 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.
5. 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).

I/O DEVICES

HP 915 Wireless Keyboard		
Physical Characteristics	Keys	104, 109 layout (depending upon country)
	Dimensions (L x W x H)	L 410.15 ± 1.0 mm x W 114.20 ± 1.0 mm x H 18.7 ± 1.0mm
	Weight	595±30 g (Without battery)
Electrical	Operating voltage	2.0~3.0V
	Power consumption	2mA~25mA maximum
	System interface	2.4GHz Wireless
	ESD	Contact Discharge: 2, 4, 6, 8 KV Air Discharge: 2, 4, 8,10,12.5 KV
	EMI - RFI	Conforms to FCC rules for a Class B computing device
Mechanical	Keycaps	Low-profile design
	Switch actuation	60±10g nominal peak force with tactile feedback
	Switch life	FN key 5M; Normal Key 10 million keystrokes (Life tester)
	Switch type	Scissor module
	Key-leveling mechanisms	For all double-wide and greater-length keys
	Cable length	No Cable
Environmental	Acoustics	50 dBA max
	Operating temperature	0℃to 40 ℃
	Non-operating temperature	-30℃ to 65℃
	Operating humidity	15% to 90% (non-condensing at ambient)
	Non-operating humidity	40% to 60% (non-condensing at ambient)
	Operating shock	50Ips - 65Ips, six surfaces
	Non-operating shock	30 g, six surfaces
	Operating vibration	0.21g peak acceleration
	Non-operating vibration	5-500Hz-5Hz peak acceleration; 2.09g peak acceleration
	Drop (out of box)	76cm on Woody surface; 6 faces (1 time / face)
	Drop (in box)	drop height 76cm, 10 drops including 6 faces, one corner and 3 edges on rigid surface.
Approvals	UL, FCC, IC, CE Mark, TUV Bauart, TELEC, VCCI, BSMI, NCC, RCM, KCC, ANATEL, CNC, EAC, IFETEL, NOM, WPC, SIRIM, ICASA	

Technical Specifications – Audio/Multimedia

HP 915 Wireless Mouse		
Dimensions (H x L x W)	H 31.58+/-0.3mm x L 119.3+/-0.5mm x W 64.83+/-0.3mm	
Weight	68+/-10g (Without battery)	
Environmental	Operating temperature	0℃to 40 ℃
	Non-operating temperature	-30℃ to 65℃
	Operating humidity	15% to 90% (non-condensing at ambient)
	Non-operating humidity	40% to 60% (non-condensing at ambient)
	Operating shock	50Ips - 65Ips, six surfaces
	Non-operating shock	30 g, six surfaces
	Operating vibration	0.21g peak acceleration
	Non-operating vibration	5-500Hz-5Hz peak acceleration; 2.09g peak acceleration
Electrical	Operating voltage	2.0~3.0V
	Power consumption (typical)	2mA~40mA maximum
	Resolution	1000 DPI (Default)
	Sensor	Pixart PAW 3220LU
	Tracking speed	up to 30 inch/sec
	Tracking acceleration	2.4GHz Wireless
Mechanical	Color	Key cover: Mineral Silver -40% Darker; Top/bottom cover: Turbo Silver
Regulatory approvals	Compliant	UL, FCC, IC, CE Mark, TUV Bauart, TELEC, VCCI, BSMI, NCC, RCM, KCC, ANATEL, CNC, EAC, IFETEL, NOM, WPC, SIRIM, ICASA
Ergonomic compliance	Compliant	N/A

Technical Specifications – Audio/Multimedia

AUDIO/MULTIMEDIA

Bang & Olufsen Audio	
Type	Integrated
HD Stereo Codec	Realtek ALC3274
Audio I/O Ports	Side headset connector supports a CTIA/OMTP style headset and is re-taskable as a Line-in, Line-out, Microphone-in or Headphone-out port All ports are 3.5mm and support stereo
Internal Speaker Amplifier	5W per channel class D stereo amplifier for the internal speakers only
Multi-streaming Capable	Playback multi-streaming can be enabled in the audio control panel to allow independent audio streams to be sent to/from the front and rear jacks or integrated speakers.
Sampling	Independent sampling rates for DAC’s and ADC’s; supports resolutions from 16 to 24-bit; 44.1 kHz to 192 kHz for DAC and 44.1 kHz to 192 kHz for ADC
Wavetable Syntheses	Yes - Uses OS soft wavetable
Analog Audio	Yes
# of Channels on Line-Out	Stereo (Left & Right channels)
Internal Speaker	Yes - Stereo

WEBCAM AND MICROPHONE

Webcam and Microphone
Magnetically attaching 16MP (4MP binned) webcam with Temporal Noise Reduction (TNR) and IR Sensor (Supports Windows Hello)

NOTE: All HP devices which carry the Bang & Olufsen brand are custom-tuned with Bang & Olufsen’s acoustical engineers for precise sound experience in business use.

POWER

Unit Environment and Operating Conditions

Temperature Range	Operating: 5°C ~45°C Non-Operating: -40°C ~66°C
Relative Humidity	Operating 5% to 90% relative humidity at max inlet temperature Non-Operating 5% to 90% relative humidity at max inlet temperature
Maximum Altitude (unpressurized)	Operating: 5000m Non-operating: 50,000 ft. (15240 m)

80 PLUS Platinum	240W active PFC / 80 PLUS Platinum 280W active PFC / 80 PLUS Platinum 90/92/89% efficient at 20/50/100% load (115V) 91/93/90% efficient at 20/50/100% load (230V)
Operating Voltage Range	90Vac~264Vac
Rated Voltage Range	100Vac~240Vac
Rated Line Frequency	50HZ~60HZ
Operating Line Frequency	47HZ~63HZ
Rated Input Current	
Rated Input Current with Energy Efficient* Power Supply	240W≦3.0A 280W≦3.2A
DC Output	+20V

Current Leakage (NFPA 99: 2012)	Less than 500 microamps of leakage current at 120 Vac with the ground wire disconnected, as required for Non-patient Electrical Appliances and Equipment used in a patient care facility or that contact patients in normal use. Per section 10.3.5.1. Less than 100 microamps of leakage current at 120 Vac with the ground wire intact with normal polarity, as required for Non-patient Electrical Appliances and Equipment used in a patient care facility or that contact patients in normal use. Per section 10.3.5.1.
Power cord length	6.0 ft. (1.83 m)[1,2]
External Power Adapter	Internal power supply
Dimensions	130mm x 90mm x 26m
Total Cord Length	6.0 ft. (1.83 m)

1. Power cord length will be varied from different type of cords start from 1.8m.
2. The length of India power cord is 2.0m

Technical Specifications – Power

Wireless Charger General Description

Operating Voltage	12~13V (DC) After QI certificate, this range are optimum voltage.
Nominal Input voltage	12.6V (DC) (The optimum working voltage)
Input Current	Typ. 1.5A (2A max.)
Max Input Power	<24W
Standby Current (No load)	Average current=12.5mA Max. (Q/Ping period= 500ms Avg. Power 150mW Max.)
Over Voltage Protection	15V Max.
Over Current Protection	2.1A± 10%

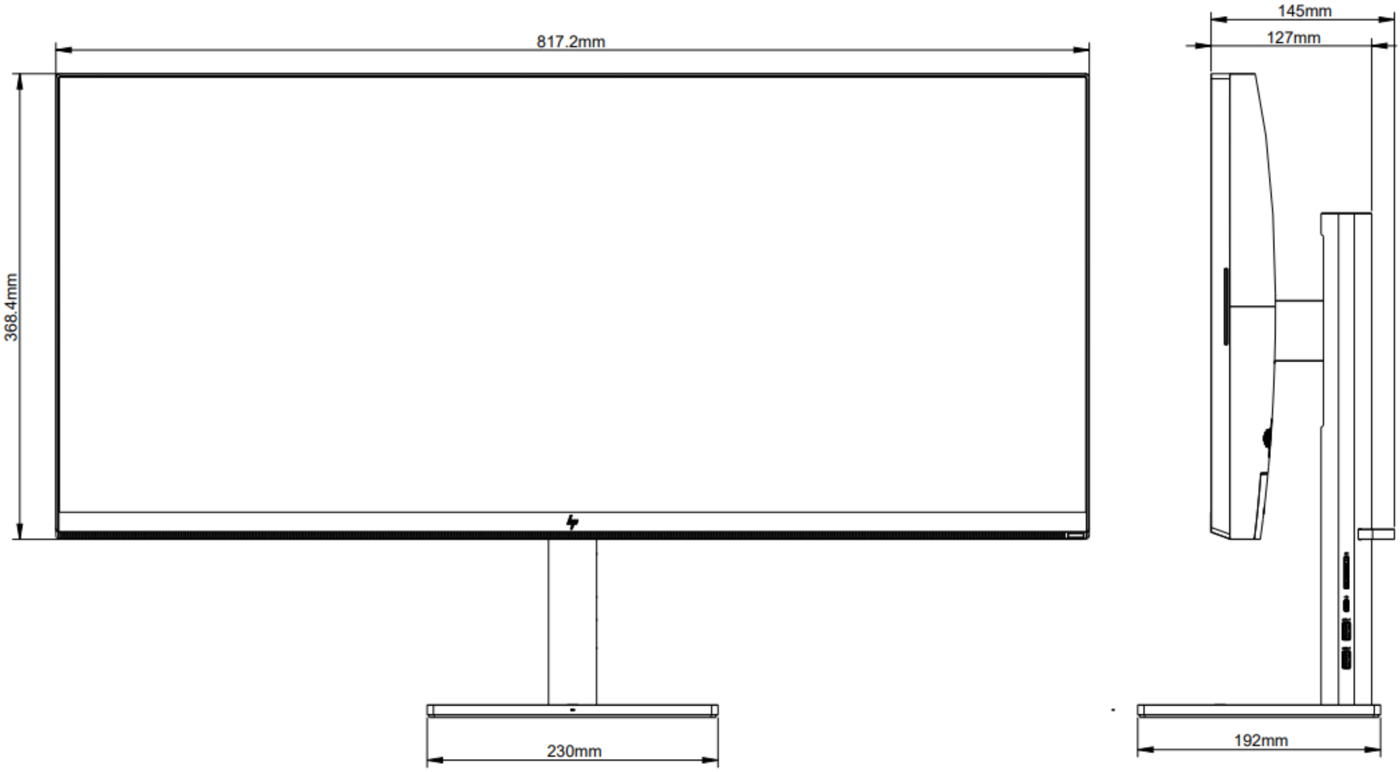
The power supply shall comply with harmonic input current requirements as detailed in EN61000-3-2 and JEIDA MITI standards.
The harmonic input current requirements must be met under the following operating conditions:
Load Requirements: 50% and 100%
Input Voltage: 230Vac/50Hz.
For active power factor correction the power factor at 50% &100% loads shall be greater than 0.9 over the entire nominal input voltage range (100-127VAC and 200-240VAC).

Condition	Standard Efficiency	82/85/82%	85/88/85%	87/90/87%	90/92/89%	Input Voltage
10% of Rated Load	-	75%	81%	84%	86%	115Vac/60HZ
20% of Rated Load	-	82%	85%	87%	90%	115Vac/60HZ
50% of Rated Load	-	85%	88%	90%	92%	115Vac/60HZ
	PF>0.9	PF>0.9	PF>0.9	PF>0.9	PF>0.95	
100% of Rated Load	70%	82%	85%	87%	89%	115Vac/60HZ
	PF>0.9	PF>0.9	PF>0.9	PF>0.9	PF>0.9	230Vac/50HZ

WEIGHTS & DIMENSIONS

Palletization Profile	10-units per layer 4-layers max 40-units per pallet (sea) 1200 x 1000 x 2470 mm

STANDS AND DIMENSIONS



Adjustable Height Stand:	Height - Vertical/Landscape Adjustment	64.6mm (±1 mm)
	Portrait Adjustment	No portrait
	Tilt Angle	-5° (+1.0/-2.0°) ~ 25° (+/-1.5°) in landscape and portrait
	Rotation (Swivel)	No rotation (Swivel)
	Pivot	No pivot

Technical Specifications – Miscellaneous Features

ALL-IN-ONE WEIGHTS AND DIMENSIONS

Product Weight Unboxed	Without Stand 19.44 lb 8.82 kg	Adjustable Height Stand (WLC) 26.0 lb. 11.8 kg
Shipping Weight Boxed EPE	Without Stand 37.10 lb 16.86 kg	Adjustable Height Stand (WLC) 43.67 lb 19.81 kg

MISCELLANEOUS FEATURES

Management Features

- Advanced Configuration and Power Management Interface (ACPI). Allows the system to wake from a low power mode. Controls system power consumption, making it possible to place individual cards and peripherals in a low-power or powered-off state without affecting other elements of the system.
- Intel® Wired for Management support; industry wide initiative to make Intel® architecture based PCs, servers and mobile computers more inherently manageable out-of-the-box and over the network
- Dual State Power Button; acts as both an on/off button and a suspend-to-sleep button

Serviceability Features

- Dual colored power LED on front of computer to indicate either normal or fault condition
- Diagnostic LED Explanation Table:
  - Power LED will blink red 2 to 5 times, then blink white 2 or more times, then repeat (with beep tones for each blink initially):

2 red + 2 white	User must provide file for BIOS recovery (USB storage typically)
2 red + 3 white	User must enter a key sequence to proceed with recovery by policy
2 red + 4 white	BIOS recovery is in progress
3 red + 2 white	Memory could not be initialized
3 red + 3 white	Graphics adaptor could not be found
3 red + 4 white	Power supply failure / not connected
3 red + 5 white	Processor not installed
3 red + 6 white	Current processor does not support an enabled feature
4 red + 2 white	Processor has exceeded its temperature threshold / system thermal shutdown
4 red + 3 white	System internal temperature has exceeded its threshold
5 red + 2 white	System controller firmware is not valid
5 red + 3 white	System controller detected BIOS is not executing
5 red + 4 white	BIOS could not complete initialization / PCA failure
5 red + 5 white	System controller rebooted the system after a health or recovery timer triggered

- HP PC Hardware Diagnostics UEFI:
  - This utility enables hardware level testing outside the operating system on many components. The diagnostics can be invoked by pressing F2 at POST, and is available as a download from HP Support
- System/Emergency ROM
- Flash ROM
- CMOS Battery Holder for easy replacement
- 1 Aux Power LED on System PCA
- Processor ZIF Socket for easy Upgrade
- Over-Temp Warning on Screen (Requires IM Agents)
- DIMM Connectors for easy Upgrade
- Clear CMOS Button
- NIC LEDs (integrated) (Green & Amber)
- Dual Color Power and HD LED - To Indicate Normal Operations and Fault Conditions
- Color coordinated cables and connectors
- Tool-less Hood Removal
- Front power switch
- System memory can be upgraded without removing the system board or any internal components
- Green Pull Tabs, and Quick Release Latches for easy Identification

Technical Specifications – Miscellaneous Features

Additional Features	**Description**
Drive Lock	Implementation of the industry standard ATA Security feature set. When enabled, it prevents software access to user data on the drive until one or two user-defined passwords are provided.
Boot Sectors Protection	MBR and GPT sectors of the hard drive are critical to booting the operating system. By saving the MBR or GPT data (depending on the how the OS was installed), the BIOS will be able to monitor for changes and allow the user to override them with the backup copy at boot-up.
Drive Protection System	DPS Access through F10 Setup during Boot (for SATA hard drive only) A diagnostic hard drive self- test. It scans critical physical components and every sector of the hard drive for physical faults and then reports any faults to the user Running independently of the operating system, it can be accessed through a Windows-based diagnostics utility or through the computer's setup procedure. It produces an evaluation on whether the hard drive is the source of the problem and needs to be replaced The system expands on the Self-Monitoring, Analysis, and Reporting Technology (SMART), a continuously running systems diagnostic that alerts the user to certain types of failures
SMART Technology (Self-Monitoring, Analysis and Reporting Technology)	Allows hard drives to monitor their own health and to raise flags if imminent failures were predicted
SMART I - Drive Failure Prediction	Predicts failures before they occur. Tracks fault prediction and failure indication parameters such as re-allocated sector count, spin retry count, calibration retry count
SMART II - Off-Line Data Collection	By avoiding actual hard drive failures, SMART hard drives act as "insurance" against unplanned user downtime and potential data loss from hard drive failure
SMART III - Off-Line Read Scanning with Defect Reallocation	IOEDC: I/O Error Detection Circuitry
SMART IV - End-to-End CRC for hard drives	Detects errors in Read/Write buffers on HDD cache RAM

AFTER MARKET OPTIONS

Graphics Solutions	**Part Number**
HP DisplayPort to HDMI True 4k Adapter	2JA63AA
HP HDMI Standard Cable Kit	T6F94AA
HP DisplayPort to VGA Adapter	AS615AA
HP DisplayPort to DVI-D Adapter	FH973AA
HP USB-C To DisplayPort Adapter	N9K78AA

Accessories	**Part Number**
HP Quick Release Bracket 2	6KD15AA
HP Single Monitor Arm	BT861AA

NOTE*: Must have purchased AIO with no stand to receive VESA mounting bracket kit, which is not after market.

Data Storage Drives	**Part Number**
HP PCIe NVME TLC M.2 256GB SSD	1CA51AA

Input Devices	**Part Number**
HP 125 Wired Keyboard	266C9AA
HP 225 Antimicrobial Wired Mouse and Keyboard Combo (China only)	286K3AA
HP 225 Wired Mouse and Keyboard Combo	286J4AA
HP 125 Wired Mouse	265A9AA
HP 128 Laser Wired Mouse	265D9AA
HP Wired Desktop 320K Keyboard	9SR37AA
HP Wired Desktop 320M Mouse	9VA80AA
HP Wired Desktop 320MK Mouse and Keyboard	9SR36AA
HP USB Business Slim CCID SmartCard Keyboard	Z9H48AA
HP 655 Wireless Keyboard and Mouse Combo	4R009AA
HP 455 Programmable Wireless Keyboard	4R177AA

1. Only available in NA/EMEA regions

Technical Specifications – After Market Options

System Memory	**Part Number**
HP 16GB DDR5-4800 SODIMM	TBD

Multimedia Devices	**Part Number**
HP S101 Speaker Bar	5UU40AA
HP Stereo 3.5mm Headset G2	428K7AA
HP Stereo USB Headset G2	428K6AA

Security Devices	**Part Number**
HP Business PC Security Lock v3 Kit	3XJ17AA
HP Keyed Cable Lock 10mm	T1A62AA
HP Master Keyed Cable Lock 10mm	T1A63AA
HP Sure Key Cable Lock	6UW42AA

I/O Devices	**Part Number**
HP USB to Serial Port Adapter	J7B60AA
HP USB-C to Display Port Adapter	N9K78AA
HP USB Type-C Extension Cable Kit (5M)	9JH45AA

NOTE: For more detail on HP I/O Devices please refer to the HP FLEX IO Option Cards QuickSpecs. URL is: http://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c06042607

Change Log

Date	**Version History**	**Action**	**Description of Change**
March 8, 2023	From v1 to v2	Removal	TCO Certified Edge and Taiwan Green Mark removed from ENVIRONMENTAL & INDUSTRY section.
	From v2 to v3		
	From v3 to v4		
	From v4 to v5		
	From v5 to v6		
	From v6 to v7		
	From v6 to v7		
	From v8 to v9		
	From v9 to v10		