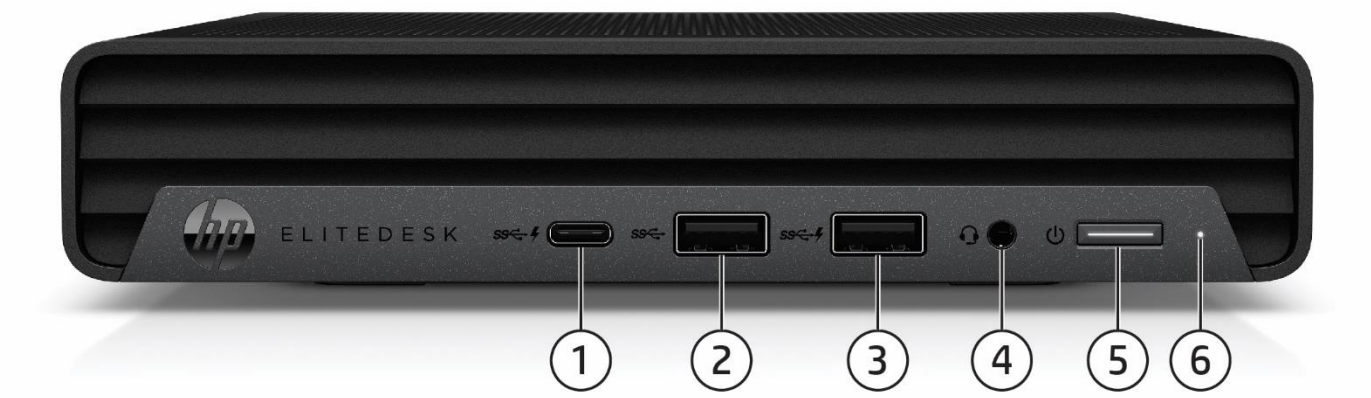
Overview

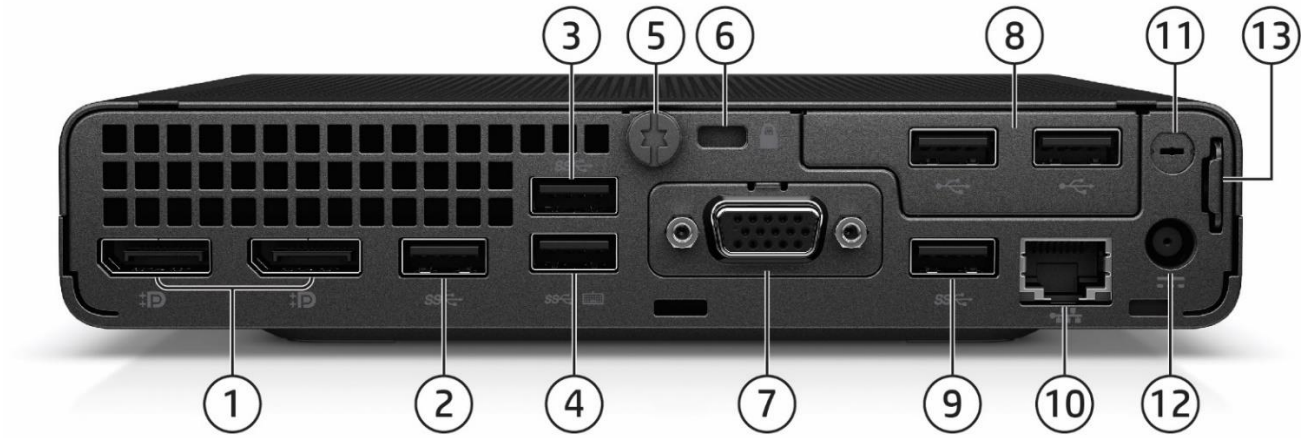
HP EliteDesk 800 G8 Desktop Mini PC



1. Type-C® SuperSpeed USB 20Gbps signaling rate port (charge support up to 5V/3A)
2. Type-A SuperSpeed USB 10Gbps signaling rate port
3. Type-A SuperSpeed USB 5Gbps signaling rate port (charge support up to 5V/1.5A)
4. Combo Audio Jack with CTIA and OMTP headset support
5. Dual-state power button
6. Hard drive activity light

Overview

HP EliteDesk 800 G8 Desktop Mini PC



1. (2) Dual-Mode DisplayPort™ 1.4 (DP++)
2. Type-A SuperSpeed USB 5Gbps signaling rate port
3. Type-A SuperSpeed USB 5Gbps signaling rate port (Supporting wake from S4/S5 with keyboard/mouse connected and enabled in BIOS)
4. Type-A SuperSpeed USB 10Gbps signaling rate port (Supporting wake from S4/S5 with keyboard/mouse connected and enabled in BIOS)
5. Cover release thumbscrew
6. Standard cable lock slot (10 mm)
7. (1) Flex Port 1, choice of:
   - HDMI 2.0b
   - VGA
   - DisplayPort™ 1.4
   - Fiber NIC (100Mbps and 1Gbps)[1]
   - Serial[2]
   - Thunderbolt 3[1]
   - Type-C™ SuperSpeed USB 10Gbps signaling rate port w/ DisplayPort™ Alt Mode and 100W Power Intake
   - Intel® I225-LM 2.5 Gigabit Network Connection LOM (non-vPro)
   - Dual Type A SuperSpeed USB 5Gbps signaling rate port
8. (1) Flex Port 2, choice of:
   - VR Ready NVIDIA GTX 1660 Ti discrete GPU
   - Dual Type-A Hi-Speed USB 480Mbps signaling rate port
   - Serial
   - Second external antenna
9. Type-A SuperSpeed USB 10Gbps signaling rate port
10. RJ45 network connector
11. External WLAN antenna opening
12. Power connector
13. Retractable Padlock loop

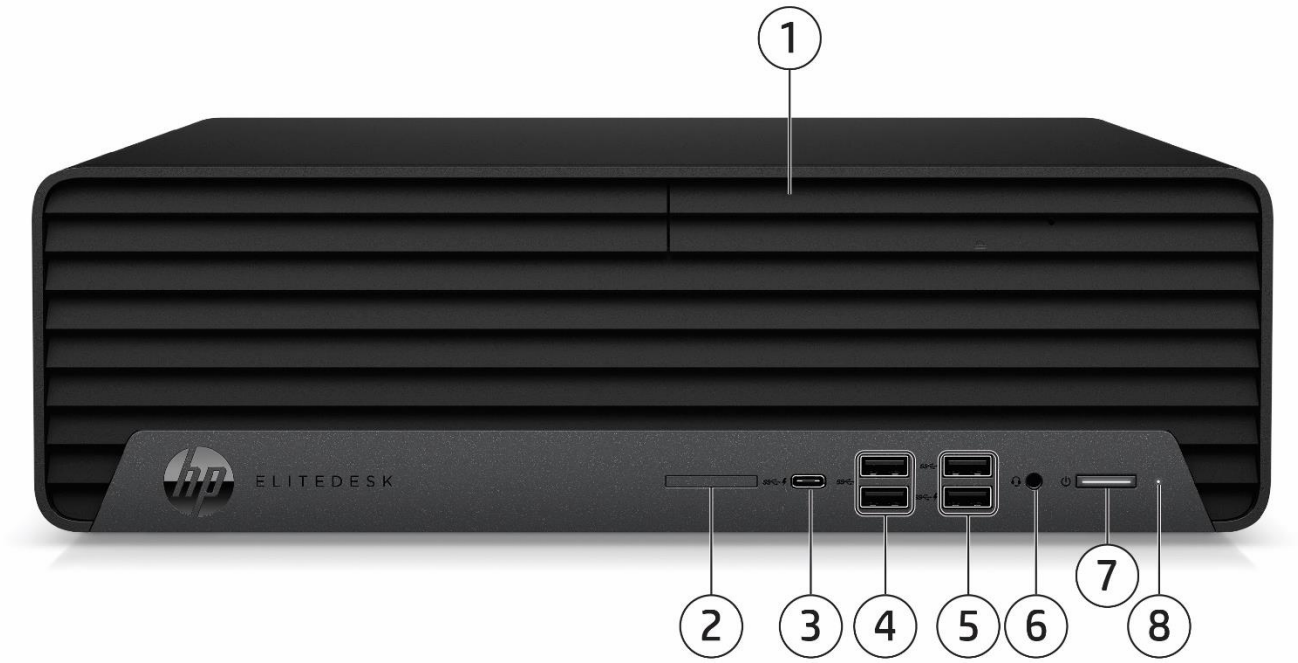
Not Shown

Slots	(1) Internal M.2 2230 connector for WLAN (2) Internal M.2 SSD storage 2280 connector
Bays	(1) 2.5- inch SATA drive Bay (not available on discrete graphics sku)
Mounting	Support for - VESA Sleeve Standalone - Quick Release Bracket - B300/B500 Mounting bracket - Integrated Work Center Stand

1. Fiber NIC (100Mbps and 1Gbps) cards would not be available in some selected Europe countries and Korea.
2. Sold separately or as an optional feature.

Overview

HP EliteDesk 800 G8 Small Form Factor PC



1. Slim optical drive (optional)
2. SD 4 Card Reader (optional)
3. Type-C® SuperSpeed USB 20Gbps signaling rate port (charge support up to 5V/3A)
4. (2) Type A SuperSpeed USB 10Gbps signaling rate port
5. (2) Type A SuperSpeed USB 5Gbps signaling rate port (1 with charge support up to 5V/1.5A)
6. Combo Audio Jack with CTIA and OMTP headset support
7. Dual-state power button
8. Hard drive activity light

Not Shown

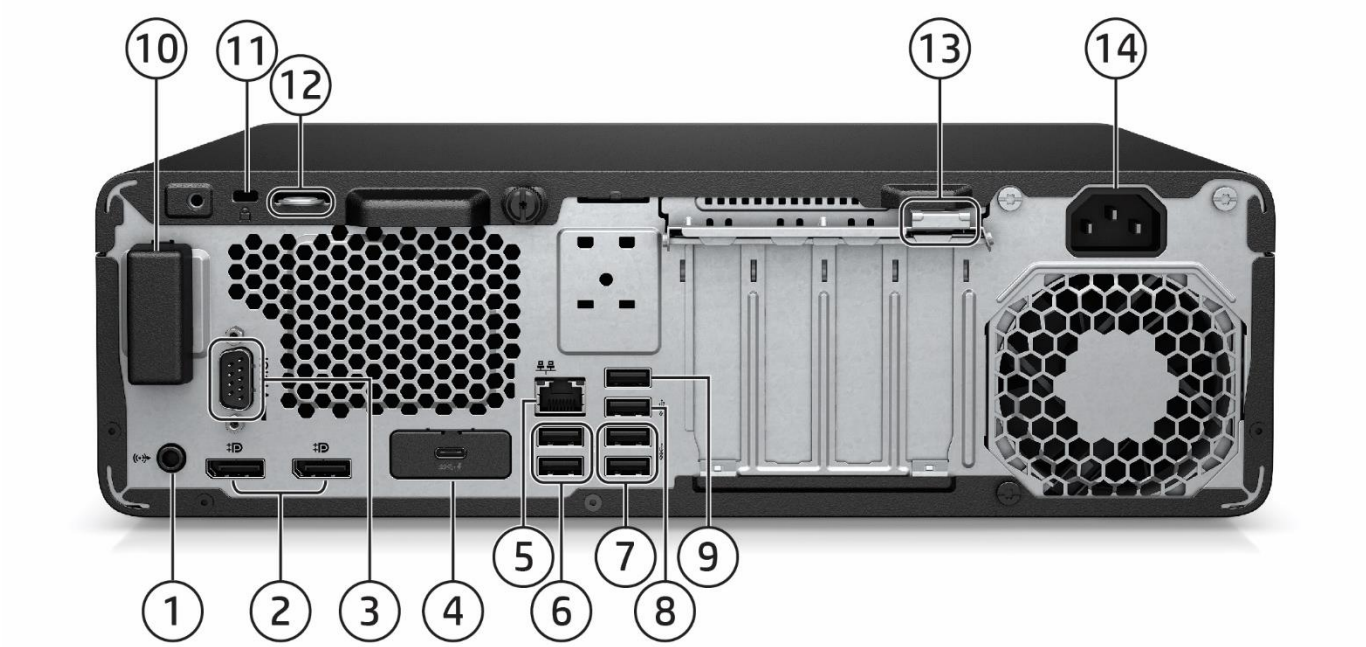
(2) PCI Express x16 graphics connectors (one wired as x4)

(2) PCI Express x1

(3) M.2 (1 as M.2 2230 socket for WLAN/BT and 2 as M.2 2280 socket for storage)

Overview

HP EliteDesk 800 G8 Small Form Factor PC



1. Audio line-out connector
2. (2) Dual-Mode DisplayPort™ 1.4a (DP++)
3. Optional Serial port (shown here installed)
4. Optional port, choice of (shown here USB-C® installed):
   - DisplayPort™
   - HDMI 2.0b
   - VGA
   - Serial
   - Dual Type-A SuperSpeed USB 5Gbps signaling rate port
   - USB-C® SuperSpeed 10Gbps signaling rate port (Alt Mode DP 1.4 with 15W output)
5. RJ45 network connector
6. (2) Type A Hi-Speed USB 480 Mbps signaling rate port with wake from S4/S5
7. (2) Type A SuperSpeed USB 10Gbps signaling rate port
8. (1) Type A SuperSpeed USB 5Gbps signaling rate port
9. (1) Type A Hi-Speed USB 480 Mbps signaling rate port
10. Internal WLAN antenna cover (optional, shown here not installed)
11. Standard cable lock slot
12. Intrusion sensor/hood lock (optional, shown here not installed)
13. Integrated keyboard/mouse wire hoop
14. Power cord connector

Not shown

Optional Ports

Thunderbolt™ 3 port card[1]

PS/2 & serial port card (connected to the mainboard via a flyer cable)[1]

Parallel port[1]

Bays

(1) 2.5" internal storage drive bay

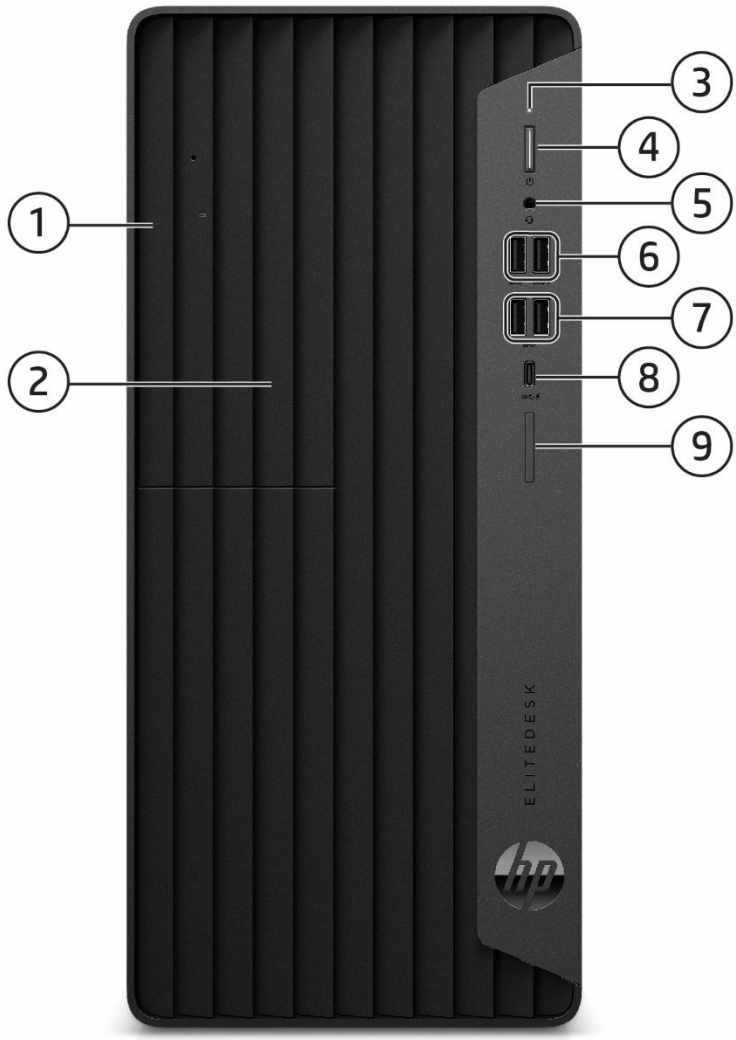
(2) 3.5” internal storage drive bay (convertible to 2.5” with Caddy)

(1) 9.5 mm slim optical drive bay

1. Each of the legacy port options would occupy one rear slot.

Overview

HP EliteDesk 800 G8 Tower PC



1. Slim optical drive (optional)
2. External 5.25-inch Half-Height Drive Bay (optional)
3. Hard drive activity light
4. Dual-state power button
5. Combo Audio Jack with CTIA and OMTP headset support
6. (2) Type-A SuperSpeed USB 10Gbps signaling rate port
7. (2) Type A SuperSpeed USB 5Gbps signaling rate port (1 with charge support up to 5V/1.5A)
8. Type-C® SuperSpeed USB 20Gbps signaling rate port (charge support up to 5V/3A)
9. SD card 4.0 reader (optional)

Not Shown

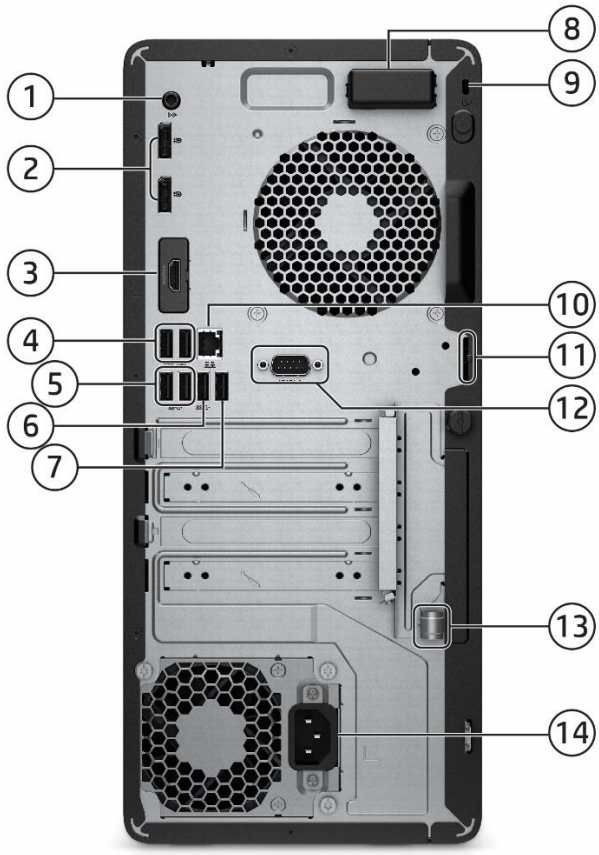
Slots

(2) PCI Express x16 graphics connectors (one wired as x4)

(3) M.2 (1 as M.2 2230 socket for WLAN/BT and 2 as M.2 2280 socket for storage)

Overview

HP EliteDesk 800 G8 Tower PC



1. Audio line-out jack connector
2. (2) Dual-Mode DisplayPort™ 1.4 (DP++)
3. Flex port, choice of (shown here HDMI installed):
   - DisplayPort™ 1.4
   - HDMI 2.0b
   - VGA
   - Dual Type-A SuperSpeed USB 5Gbps signaling rate port
   - Serial
   - USB-C® SuperSpeed USB 10Gbps signaling rate port (USB-C® option has alt mode DisplayPort™ 1.4 and 15W output)
4. (2) Type A Hi-Speed USB 480 Mbps signaling rate port with wake from S4/S5
5. (2) Type A SuperSpeed USB 10Gbps signaling rate port
6. (1) Type A SuperSpeed USB 5Gbps signaling rate port
7. (1) Type A Hi-Speed USB 480 Mbps signaling rate port
8. Internal WLAN antenna (optional, shown here installed)
9. Standard cable lock slot
10. RJ-45 (network) jack
11. Intrusion sensor/hood lock (optional, shown here not installed)
12. Serial port (optional, shown here not installed)
13. Integrated keyboard/mouse wire hoop
14. Power cord connector

Not shown

Optional ports

Thunderbolt™ 3 card[1]

PS/2 & serial port card (connected to mainboard via a flyer cable) [1]

Parallel Port[1]

Bays

(1) 2.5" internal storage drive bay

(2) 3.5” internal storage drive bay (convertible to 2.5”)

(1) 5.25” half-height drive bay

(1) 9.5mm slim optical drive bay

1. Each of the legacy options will occupy one rear slot.

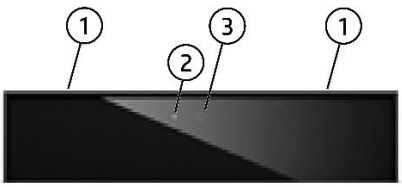
Overview

HP EliteOne 800 G8 24 & 27 All-in-One PC
Touch/Non-Touch

1. Camera (optional)
2. Speakers (optional)

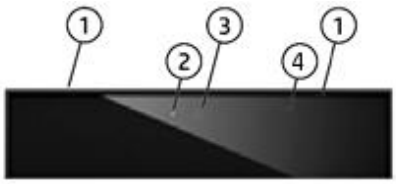
HP EliteOne 800 G8 24 & 27 All-in-One PC Touch/Non-Touch

5MP Pop-up Webcam (optional)



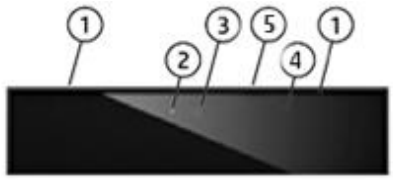
1. Dual Microphones
2. Webcam Light
3. SMP Webcam

5MP Pop-up Webcam +IR Sensor (optional)



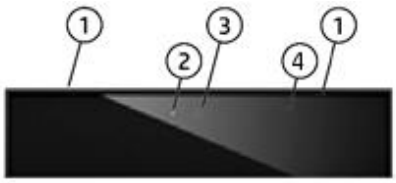
1. Dual Microphones
2. Webcam Light
3. IR/5MP Webcam
4. IR Light

5MP Pop-up Webcam +IR Sensor + Time of Flight Sensor (TOF) (optional)



1. Dual Microphones
2. Webcam Light
3. IR/5MP Webcam
4. IR Light
5. TOF Sensor

Dual Facing 5MP Pop-up Webcam Webcam +IR Sensor (optional)



1. Dual Microphones
2. Webcam Light
3. IR/5MP Webcam
4. IR Light

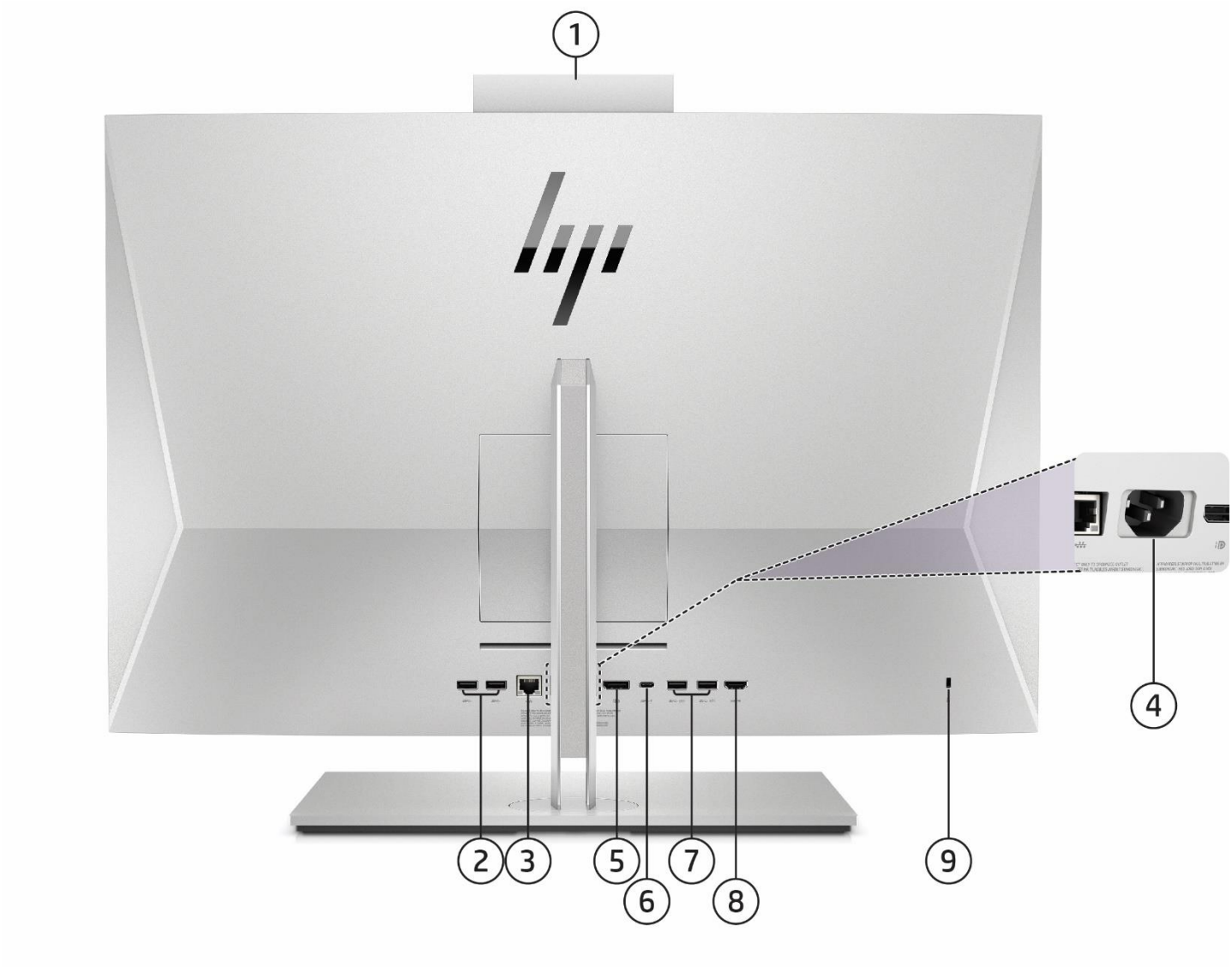
Overview

HP EliteOne 800 G8 24 & 27 All-in-One PC
Touch/Non-Touch

1. Type-A SuperSpeed USB 10Gbps signaling rate port (charge support up to 5V/3A)
2. Type-C® SuperSpeed USB 10Gbps signaling rate port (charge support up to (5V/3A)
3. Combo Audio Jack with CTIA and OMTP headset Support

Overview

HP EliteOne 800 G8 24 & 27 All-in-One PC
Touch/Non-Touch

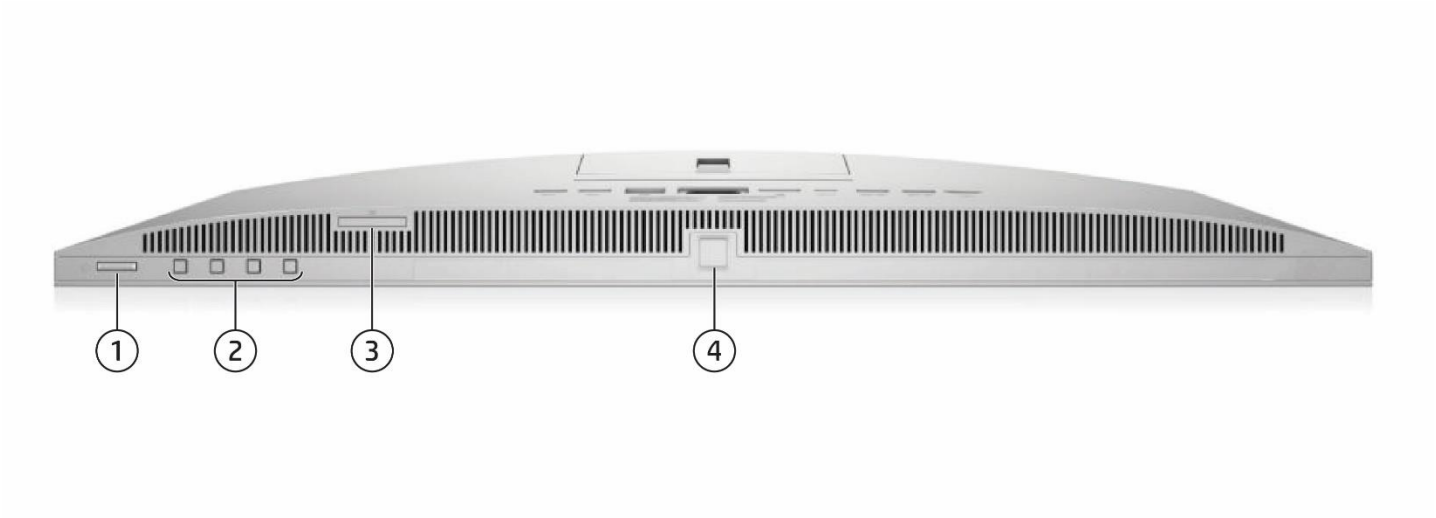


Rear components and rear ports

1. Camera (optional)
2. Type-A SuperSpeed USB 10Gbps signaling rate port (x2)
3. RJ-45 network connector/jack
4. Power Connector
5. Dual-Mode DisplayPort™1.4 (DP++)
6. Type-C® SuperSpeed USB 10Gbps signaling rate port (charge support up to (5V/3A)
7. Type-A SuperSpeed USB 5Gbps signaling rate port (x2)
8. HDMI-in 2.0a connector
9. Standard cable lock slot

Overview

HP EliteOne 800 G8 24 & 27 All-in-One PC
Touch/Non-Touch



Bottom

1. Dual-State Power button
2. OSD control buttons
3. SD card reader 4.0 (optional)
3. SD card reader 4.0 (optional)
4. Fingerprint Sensor (optional)

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

VESA

Support for VESA 100 mounting system on back of PC chassis (mounting hardware sold separately)

Features

AT A GLANCE

- Choice of four form factors: Tower, Small Form Factor, Desktop Mini and All-In-One
- HP developed and engineered UEFI V2.7 BIOS supporting security, manageability and software image stability
- Intel® Q570 chipset supporting Intel® 11th generation Core™ processors, featuring integrated Intel® UHD Graphics and Intel® vPro® Technology (available with Core i5-11500 and above processors) [1,2]
- Support for three (3) M.2 Storage slots (All-in-One)
- Intel® Optane™ Memory H10 with Solid State Storage
- Intel® UHD graphics with optional discrete graphics configure systems to up to 7 monitors (TWR, SFF and DM 35W Processors only)
- Intel® Ethernet Connection I219LM GbE LOM integrated network connection
- Intel® Wi-Fi 6 + BT5.1 (802.11AX 2x2)
- DDR4 Synchronous Dynamic Random Access Memory (SDRAM) (Transfer rates up to 3200 MT/s)
- Support for up to 7 monitors via two standard DisplayPort™ 1.4 ports, a configurable Flex I/O port for video options and a discrete graphics card on TWRs, SFFs and DMs. All-in-One supports up to two additional monitors via DisplayPort™ or Type-C® USB in alternate mode.
- Configurable FlexPort which provides the following choices: HDMI 2.0b, Serial, VGA, DisplayPort™ 1.4, or USB Type-C® with DisplayPort™ 1.4 (USB Type-C® with DisplayPort™ 1.4 with Power Delivery [PD] on DMs), Thunderbolt 3 (PCIe card on TWR, SFF), Thunderbolt 3 with USB4.0 (port on DM and will be ready in post launch), and Dual USB Type-A for (TWRs, SFFs and DMs). See Ports section for port availability by platform. FlexPort not supported on All-in-One.
- 2nd FlexPort available for configuration on the HP EliteDesk G8 Desktop Minis with the following ports: mini-DisplayPorts and micro-HDMI (when configured with discrete graphic card), Serial, Dual USB Type-A, and 2nd external antenna.
- Configurable NVIDIA® GeForce®VR ready discrete graphics card with (3) mini-DisplayPorts and (1) micro-HDMI video port for DM[3] to support up to (7) monitors with minimum 4K resolution and option to connect up to (3) monitors with 5K resolution via graphics card.
- Configurable AMD® Radeon, NVIDIA® GeForce® and NVIDIA® Quadro® VR ready discrete graphics on TWR [3]
- Compatibility with HP Mini-In-One 24 Display (800 G8 DM with 100W USB-C +PD option card)
- Compatible with HP Reverb G2 VR Headset (TWR, DM)
- Models can be configured with multiple data drives in a RAID array
- Audio by Bang & Olufsen (All-in-One)
- Integrated Low Blue Light Panels on All-in-One (excludes 23.8" Touch Models)
- Enhanced Security with HP Security Suite (Refer to Security Section for details)
- 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.
- CCC, CECP and SEPA Certified (TWR/SFF/DM/All-in-One)
- TCO Edge for All-in-One
- TCO (TWR/SFF/DM)
- PC chassis and all internal components and modules are manufactured with low halogen content[4]
- Dust filter available for following platforms (DM with 35W processor, SFFs and TWR)
- Protected by HP Services, including limited warranties up to 3-3-3 (terms and conditions vary by country; certain restrictions and exclusions apply); Care Packs available with up to 5 years Next Business Day Onsite Hardware Support
- Compliance with CE (Class B) / FCC (Class B) / UL (UL60950-1 /UL62368-1) / CSA (CSA C22.2 No.60950-1-07 / CSA C22.2 No. 62368-1-14) / ICES-003 / CCC / VCCI (Class B) / KCC (Class B)

1. 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 measurement of higher performance.
2. Some functionality of vPro technology, such as Intel Active management technology and Intel Virtualization technology, requires additional 3rd party software in order to run. Availability of future "virtual appliances" applications for Intel vPro technology is dependent on 3rd party software providers. Compatibility of this generation of Intel vPro technology-based hardware with future "virtual appliances" is yet to be determined.
3. VR-ready as optional feature, specific configuration to support: 800 TWR: Nvidia GeForce 3070 card;800 DM: Nvidia GTX 1660Ti card.
4. External power supplies, power cords, cables and peripherals are not low halogen. Service parts obtained after purchase may not be low halogen.

Features

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

PRODUCT NAME

HP EliteDesk 800 G8 Tower PC
HP EliteDesk 800 G8 Small Form Factor PC
HP EliteDesk 800 G8 Desktop Mini PC
HP EliteOne 800 G8 24 All-in-One PC
HP EliteOne 800 G8 27 All-in-One PC

OPERATING SYSTEM

Preinstalled	Windows 11 Pro[1] Windows 11 Pro Education[1] Windows 11 Home - HP recommends Windows 11 Pro for business[1] Windows 11 Home Single Language - HP recommends Windows 11 Pro for business[1] Windows 11 Pro (Windows 11 Enterprise available with a Volume Licensing Agreement)[1] Windows 10 Pro[1,2] Windows 10 Pro Education[1,2] Windows 10 Home - HP recommends Windows 11 Pro for business[1,2] Windows 10 Home Single Language - HP recommends Windows 11 Pro for business[1,2] FreeDOS
Web-supported only	Windows 10 Pro (Windows 10 Enterprise available with a Volume Licensing Agreement)[1,3]

1. Device comes with Windows 10 and a free Windows 11 upgrade or may be preloaded with Windows 11. Upgrade timing may vary by device. Features and app availability may vary by region. Certain features require specific hardware (see Windows 11 Specifications).
2. 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 interneet and Microsoft account required. ISP fees apply and additional requirements may apply over time for updates. See http://www.windows.com.
3. This system is preinstalled with Windows 10 Pro software and also comes with a license for Windows 11 Pro software and provision for recovery software. You may only use one version of the Windows software at a time. Switching between versions will require you to uninstall one version and install the other version. You must back up all data (files, photos, etc.) before uninstalling and installing operating systems to avoid loss of your data.

NOTE: HP tested Windows 10, version 1909 on this platform. For testing information on newer versions of Windows 10, please see https://support.hp.com/document/c05195282.

CHIPSET

	DM	SFF	TWR	AiO
Intel® Q570	X	X	X	X

Features

PROCESSORS

Intel® 11th Generation Core™ Processors	DM	SFF	TWR	AiO
Intel® Core™ i9-11900 Processor with Intel® UHD Graphics 750 (2.5GHz, up to 5.2 GHz with Intel® Turbo Boost Technology[1], 16MB cache, 8 cores) 65W[2.3] Supports Intel® vPro® Technology[4]		X	X	X
Intel® Core™ i9-11900T Processor with Intel® UHD Graphics 750 (1.5GHz, up to 4.9GHz with Intel® Turbo Boost Technology[1], 16MB cache, 8 cores) 35W[2.3] Supports Intel® vPro® Technology[4]	X			
Intel® Core™ i7-11700 processor with Intel® UHD Graphics 750 (2.5 GHz, up to 4.9 GHz with Intel® Turbo Boost Technology[1], 16 MB cache, 8 cores) 65W[2.3] Supports Intel® vPro® Technology[4]	X	X	X	X
Intel® Core™ i7-11700T Processor with Intel® UHD Graphics 750 (1.4 GHz, up to 4.6 GHz with Intel® Turbo Boost Technology[1],16MB cache, 8 cores) 35W[2.3] Supports Intel® vPro® Technology[4]	X			
Intel® Core™ i5-11600 processor with Intel® UHD Graphics750 (2.8 GHz, up to 4.8 GHz with Intel Turbo Boost Technology[1], 12 MB cache, 6 cores) 65W[2.3] Supports Intel® vPro® Technology[4]	X	X	X	X
Intel® Core™ i5-11600T processor with Intel® UHD Graphics 750 (1.7GHz, up to 4.1 GHz with Intel Turbo Boost Technology[1], 12 MB cache, 6 cores) 35W[2.3] Supports Intel® vPro® Technology[4]	X			
Intel® Core™ i5-11500 processor with Intel® UHD Graphics 750 (2.7GHz, up to 4.6 GHz with Intel Turbo Boost Technology[1], 12 MB cache, 6 cores) 65W[2.3] Supports Intel® vPro® Technology[4]	X	X	X	X
Intel® Core™ i5-11500T processor with Intel® UHD Graphics 750 (1.5GHz, up to 3.9 GHz with Intel Turbo Boost Technology[1], 12 MB cache, 6 cores) 35W[2.3] Supports Intel® vPro® Technology[4]	X			
Intel® Core™ i5-11400 processor with Intel® UHD Graphics 730 (2.6 GHz, up to 4.4 GHz with Intel Turbo Boost Technology[1], 12 MB cache, 6 cores) 65W[2.3]	X	X	X	X
Intel® Core™ i5-11400T processor with Intel® UHD Graphics 730 (1.3GHz, up to 3.7 GHz with Intel Turbo Boost Technology[1], 12 MB cache, 6 cores) 35W[2.3]	X			

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.
3. Intel® Optane™ memory system acceleration does not replace or increase the DRAM in your system.
4. For full Intel® vPro® functionality, Windows 10 Pro 64 bit, a vPro supported processor, vPro enabled chipset, vPro enabled wired LAN and/or WLAN card and TPM 2.0 are required. Some functionality requires additional 3rd party software in order to run. See http://intel.com/vpro.

Features

GRAPHICS

Integrated Intel® Graphics	DM	SFF	TWR	AiO
Intel® UHD Graphics 750 (integrated in 11th gen Core i9/i7/i5-11500 and above)	X	X	X	X
Intel® UHD Graphics 730 (integrated in 11th gen Core i5-11400 & i5-11400T)	X	X	X	X

Optional Discrete Graphics Solutions	DM	SFF	TWR	AiO
NVIDIA® GeForce® RTX 3070 8GB FH 3DP+HDMI Graphics Card LHR[1]			X	
NVIDIA® Quadro P2200 5GB 4DP Graphics Card			X	
NVIDIA® Quadro P1000 4GB 4mDP Graphics Card			X	
NVIDIA® Quadro P620 2GB 4mDP Graphics Card		X	X	
NVIDIA® Quadro P400 2GB w/ 2mDP to DVI Graphics Card		X	X	
NVIDIA® Quadro P400 2GB w/ 2mDP to DP Graphics Card		X	X	
NVIDIA® GeForce® GTX 1660Ti 6GB 1m HMDI, 3m DP Graphics Card[2]	X			
AMD® Radeon™ RX 5300 3GB NGC Graphics Card				
AMD® Radeon™ RX 550X 4GB FH DP+HDMI Graphics Card[1]		X	X	
AMD® Radeon™ R7 430 2GB DP+VGA[3]		X	X	
AMD® Radeon™ R7 430 2GB 2DP[3]		X	X	

1. Requires 550W chassis. LHR 25 MH/s ETH hash rate (est.).
2. Only available on the Desktop Mini with a 35W Processor and supports (3) Mini DP 1.4 Ports and (1) Micro –HDMI 2.0 port in order to drive up to 7 displays directly on the Desktop Mini.
3. Not available in all regions.

NOTE: The TWR can support a single discrete graphics card up to 300W with a 550W Power Supply.

Adapters and Cables	DM	SFF	TWR	AiO
HP DisplayPort™ Cable	X	X	X	X
HP DisplayPort™ to DVI-D Adapter	X	X	X	X
HP DisplayPort™ to HDMI True 4K Adapter	X	X	X	X
HP DisplayPort™ to VGA Adapter	X	X	X	X
HP USB to Serial Port Adapter	X	X	X	X
HP USB-C® to HDMI 4K Adapter		X	X	X
HP USB-C® to DisplayPort Adapter				X
HP DVI Cable				X
HP HDMI Standard Cable Kit (HDMI)				X
50cm USB-C Cable (100W power delivery)	X			

Features

STORAGE

3.5 inch SATA Hard Disk Drives (HDD)	DM	SFF	TWR	AiO
500GB 7200RPM 3.5in SATA HDD		X	X	
1TB 7200RPM 3.5in SATA HDD		X	X	
2TB 7200RPM 3.5in SATA HDD		X	X	

2.5 inch SATA Hard Disk Drives (HDD)	DM	SFF	TWR	AiO
500GB 7200RPM 2.5in SATA HDD	X	X	X	
1TB 7200RPM 2.5in SATA HDD	X	X	X	
2TB 5400RPM 2.5in SATA HDD	X	X	X	
500GB 7200RPM 2.5in Self Encrypted OPAL2 SATA HDD*	X	X	X	
500GB 7200RPM 2.5in Self Encrypted Federal Information Processing Standard SATA HDD*	X	X	X	

* Storage DriveLock does not work with Self Encrypting or Optane based storage

M.2 PCIe NMVe Solid State Drives (SSD)	DM	SFF	TWR	AiO
256GB M.2 2280 PCIe NVMe SSD	X	X	X	X
512GB M.2 2280 PCIe NVMe SSD	X	X	X	X
128GB M.2 2280 PCIe NVMe Three Layer Cell SSD				
256GB M.2 2280 PCIe 3NVMe Three Layer Cell SSD	X	X	X	X
256GB M.2 2280 PCIe 4NVMe Three Layer Cell SSD	X	X	X	X
512GB M.2 2280 PCIe 3 NVMe Three Layer Cell SSD	X	X	X	X
512GB M.2 2280 PCIe 4 NVMe Three Layer Cell SSD	X	X	X	X
1TB M.2 2280 PCIe 3 NVMe Three Layer Cell SSD	X	X	X	X
1TB M.2 2280 PCIe 4 NVMe Three Layer Cell SSD	X	X	X	X
2TB M.2 2280 PCIe 3 NVMe Three Layer Cell SSD	X	X	X	X
2TB M.2 2280 PCIe 4NVMe Three Layer Cell SSD	X	X	X	X
256GB M.2 2280 PCIe NVMe Self Encrypted OPAL2 Three Layer Cell SSD*	X	X	X	X
512GB M.2 2280 PCIe NVMe Self Encrypted OPAL2 Three Layer Cell SSD*	X	X	X	X
256GB Intel® Optane™ Memory H10 with Solid State Storage*,**	X	X	X	X
512GB Intel® Optane™ Memory H10 with Solid State Storage*,**	X	X	X	X

NOTE* Storage DriveLock does not work with Self Encrypting or Optane based storage.
NOTE** Intel® Optane™ H10 memory system acceleration does not replace or increase the DRAM in your system. Requires 8th Gen or higher Intel® Core™ processor, BIOS version with Intel® Optane™ supported, Windows 10 64-bit, and an Intel® Rapid Storage Technology (Intel® RST) driver.

Features

Optical Disc Drives	DM	SFF	TWR	AiO
HP 9.5mm Slim DVD-ROM Drive[1]		X	X	
HP 9.5mm Slim DVD Writer Drive[1]		X	X	

1. HD-DVD disks cannot be played on this drive. No support for DVD-RAM. Actual speeds may vary. Don't copy copyright-protected materials. Double Layer discs can store more data than single layer discs. Discs burned with this drive may not be compatible with many existing single-layer DVD drives and players.

Media Card Reader	DM	SFF	TWR	AiO
SD 4.0 with 5-in-1 Interface (Supports SD, SDXC, SDHC, UHS-I, UHS-II)		X	X	X

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

MEMORY

Memory Type	DM	SFF	TWR	AiO
DDR4-3200, 64 GB, 2 SODIMM	X			X
DDR4-3200 (Transfer rates up to 3200 MT/s), 64 GB, 4 DIMM		X		
DDR4-3200 (Transfer rates up to 2933 MT/s), 128 GB, 4 DIMM		X	X	

Memory Configuration	DM	SFF	TWR	AiO
4 GB (1 x 4 GB)	X	X	X	X
8 GB (2 x 4 GB)	X	X	X	X
8 GB (1 x 8 GB)	X	X	X	X
16 GB (2 x 8 GB)	X	X	X	X
16 GB (1 x 16 GB)	X	X	X	X
32 GB (2 x 16 GB)	X	X	X	X
32 GB (1 x 32 GB)	X	X	X	X
64 GB (2 x 32 GB)	X	X	X	X
128 GB (4 x 32 GB)		X	X	

NOTE: Memory modules support data transfer rates up to 3200 MT/s; actual data rate is determined by the system configured.
NOTE: When more than one memory slot is populated, symmetric configurations are required for 2 DIMMs per channel. Mix of different data transfer rates or memory rank mix within the same channel is not allowed.
NOTE: All memory slots are customer accessible / upgradeable.
NOTE: For systems configured with more than 3 GB of memory and a 32-bit operating system, all memory may not be available due to system resource requirements. Addressing memory above 4 GB requires a 64-bit operating system.

Features

NETWORKING/COMMUNICATIONS

Ethernet (RJ-45)	DM	SFF	TWR	AiO
Intel® I219-LM 1 Gigabit Network Connection LOM (vPro)	X	X	X	X
Intel® I225-T1 2.5 Gigabit Network Connection LOM (optional)	X	X	X	

Wireless[1]	DM	SFF	TWR	AiO
Intel® Wi-Fi 6 AX201 + BT5.1 (802.11AX 2x2 vPro, supporting gigabit data rate[2])	X	X	X	X
Intel® Wi-Fi 6 AX201 + BT5.1 (802.11AX 2x2 non-vPro, supporting gigabit data rate[2])	X	X	X	
Realtek RTL8852AE 802.11ax 2x2 Wi-Fi® 6 + BT5.2	X	X	X	
Realtek RTL8822CE 802.11ac 2x2 Wi-Fi® + BT5				X

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.

KEYBOARDS AND POINTING DEVICES

Keyboards	DM	SFF	TWR	AiO
HP USB 320K Keyboard	X	X	X	X
HP USB Business Slim Wired SmartCard CCID Keyboard	X	X	X	X
HP Business Slim PS/2 Wired Keyboard		X	X	
HP 125 Wired Keyboard	X	X	X	X
HP 125 AntiMic USB Wired Keyboard[1]	X	X	X	X
HP USB PS/2 Washable Wired Keyboard	X	X	X	X

Keyboard and Mouse Combo	DM	SFF	TWR	AiO
HP Wireless Keyboard and Mouse Business Slim Keyboard	X	X	X	X
HP USB Wired Keyboard and Mouse Premium Keyboard	X	X	X	X
HP Wireless Keyboard and Mouse Premium Keyboard	X	X	X	X

Mouse	DM	SFF	TWR	AiO
HP Wired 320M Mouse	X	X	X	X
HP PS/2 Mouse		X	X	
HP USB Fingerprint Reader Wired Mouse	X	X	X	X
HP USB PS/2 Washable Wired Mouse	X	X	X	X
HP Wired 125 Mouse	X	X	X	X
HP Wired 128 Laser Mouse	X	X	X	X
HP Wired 125 Antimicrobial Mouse	X	X	X	X

1. Availability may vary by country

Features

SECURITY

	DM	SFF	TWR	AiO
TPM 2.0 endpoint security controller (Infineon SLB9670) shipped with Windows 10. Common Criteria EAL4+ Certified. FIPS 140-2 Level 2 Certified.	X	X	X	X
Solenoid Lock & Intrusion Sensor (optional)		X	X	
Intrusion Sensor for DM/AiO (integrated in the PCA, can be enabled/disabled through BIOS)	X			X
Support for chassis cable lock devices	X (10 mm barrel or smaller)	X	X	X
Support for chassis padlocks devices	X	X	X	
HP Fingerprint Sensor (optional)				X
SATA port disablement (via BIOS)	X	X	X	
Serial, USB enable / disable (via BIOS)	X	X	X	X
Serial, parallel, USB enable / disable (via BIOS)	X	X	X	X
Optional USB Port Disable at factory (user configurable via BIOS)	X	X	X	X
Removable media write/boot control	X	X	X	X
Power-on password (via BIOS)	X	X	X	X
Setup password (via BIOS)	X	X	X	X

Features

PORTS

I/O Ports – Internal Ports	DM	SFF	TWR	AiO
PCI Express 4.0 x16		1	1	N/A
PCI Express 3.0 x16				
PCI Express 3.0 x16 (wired as x4)		1	1	
PCI Express 3.0 x4				
PCI Express 3.0 x1		2	2	
SATA port		4	4	N/A
Internal SATA storage connector	1			N/A
M.2 PCIe	(1) M.2 PCIe3 x1 2230 (for WLAN) (1) M.2 PCIe4 x4 2280 (for storage) (1) M.2 PCIe3 x4 2280 (for storage)	(1) M.2 PCIe 3 x1 2230 (for WLAN) (1) M.2 PCIe 4 x4 2280 (for storage) (1) M.2 PCIe 3 x4 2280 (for storage)[1]	(1) M.2 PCIe 3 x1 2230 (for WLAN) (1) M.2 PCIe 4 x4 2280 (for storage) (1) M.2 PCIe 3 x4 2280 (for storage)[1]	(1) M.2 2230/2280 for WLAN (2) M.2 2280 for NVMe SSD One Attached to CPU PCIe Gen 4.0 Two attached to PCH PCIe Gen 3.0

1. M.2 SSD attached to CPU is PCIe Gen 4, the other two M.2 are PCIe Gen 3.
NOTE: For Desktop Mini with M.2 Storage config, there will be no SATA drive bracket. If you plan to use or upgrade the storage with any 2.5" SATA drive, please select a DM SATA Drive Bracket (available as both factory configured and after market option).

Standard User Accessible Ports	DM	SFF	TWR	AiO
Type-A Hi-Speed USB 480Mbps signaling rate port		3 (rear)	3(rear)	
Type-A SuperSpeed USB 5 Gbps signaling rate port	1 (front) 2 (rear)	2 (front,1 fast charging) 1 (rear)	2 (front, 1 fast charging) 1 (rear)	2 rear
Type-A SuperSpeed USB 10 Gbps signaling rate port	1 (front) 2 (rear)	2 (front) 2 (rear)	2 (front) 2 (rear)	2 rear 1 side
Type-C® SuperSpeed USB 10 signaling rate Gbps port				1 rear 1 side
Type-C® SuperSpeed USB 20Gbps signaling rate port	1 (front)	1 (front)	1 (front)	
Video	2 DisplayPort™ 1.4	2 DisplayPort™ 1.4	2 DisplayPort™ 1.4	1 DisplayPort™ 1.4 (rear) 1 USB Type-C® with alt mode display or 15W output) (rear) 1 HDMI-In (rear)
Audio	1 Combo Audio Jack with CTIA and OMTP headset support (front)	1 Universal Audio Jack with CTIA and OMPT headset support (front); 1 Audio-Line out (rear)	1 Universal Audio Jack with CTIA and OMPT headset support (front); 1 Audio-Line out (rear)	1 CTIA/OMTP UAJ (side)

Features

(1) Flexible Port 1, choice of one of the following...	DM	SFF	TWR	AiO
Dual Type-A SuperSpeed USB 5 Gbps signaling rate port	1	1	1	
Type-C® SuperSpeed USB 10Gbps signaling rate port	1 SuperSpeed USB 10Gbps signaling rate port w/ DisplayPort™ Alt Mode and power intake via USB Type-C® Power Delivery up to 100W	1	1	
Thunderbolt™ 3[2]	1[3]	1	1	
Video	1 DisplayPort™ 1.4 or HDMI 2.0b or VGA	1 DisplayPort™ 1.4 or HDMI 2.0b or VGA	1 DisplayPort™ 1.4 or HDMI 2.0b or VGA	
Serial	1[3]	1	1	
Fiber NIC Adapter	(1) 100Mbps NIC			
Fiber NIC Adapter	(1) 1 Gbps NIC			
RJ-45 Ethernet NIC	(1) 2.5GbE			

2. Occupies a PCIe slot on TWR/SFF. Available in Q3, 2021.
3. Sold separately or as an optional feature.

(1) Flexible Port 2, choice of one of the following:	DM	SFF	MT	AiO
Type-A USB	2 Hi-Speed USB			
Serial	1			
Discrete Graphics	1			
2nd External antenna	1			

NOTE: For Desktop Mini with M.2 Storage config, there will be no SATA drive bracket. If you plan to use or upgrade the storage with any 2.5" SATA drive, please select a DM SATA Drive Bracket (available as both factory configured and after market option).

Bays	DM	SFF	TWR	AiO
5.25" Half Height (External)			1	
9mm Slim Optical Disc Drive (ODD)		1	1	
SD Card Reader		1	1	1
2.5" Internal Storage Drive	1[4]	1	1	
3.5" Internal Storage Drive		2	2	

4. SATA 2.5” internal storage drive cannot be selected if, discrete graphic card is selected.

Features

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

BIOS
HP BIOSphere Gen6[1]
HP Secure Erase[2]
Absolute Persistence Module[3]
HP Drive Lock & Automatic Drive Lock[4]
BIOS Update via Network
HP Wake on WLAN

Software
HP Desktop Support Utilities
HP Connection Optimizer[5]
HP Easy Clean[6]
myHP
HP Privacy Settings
HP PC Hardware Diagnostics
Touchpoint Customizer for Commercial
HP Notifications
HP Presence Aware[7]
HP Setup Integrated OOBE
HP Support Assistant[8]
HP Noise Cancellation Software
HP QuickDrop[9]
Microsoft Defender
Buy Microsoft Office (sold separately)
HP Smart Support[10]

Manageability Features
HP Driver Packs (download)[11]
HP Client Catalog (download)
HP Image Assistant (download)
HP Manageability Integration Kit for Microsoft System Center Configuration Management Gen4 (download)[12]
Ivanti Management Suite (download)[13]
HP Cloud Recovery[14]
HP Client Management Script Library (download)

Security Management
HP Pro Security Edition (optional)[15]
HP Client Security Manager Gen7[16]
HP Sure Sense[17]
HP Sure Admin[18]
HP Sure Click[19]
HP Sure Start Gen6[20]
HP Sure Run Gen4[21]
HP Sure Recover Gen4[22]
HP Tamper Lock
TPM 2.0 Embedded Security Chip (Common Criteria EAL4+ Certified) (FIPS 140-2 Level 2 Certified)

1. HP BIOSphere Gen6 requires Windows 10 and is available on select HP Pro and Elite PCs. Features may vary depending on the platform and configurations.
2. HP Secure Erase for the methods outlined in the National Institute of Standards and Technology Special Publication 800-88 "Clear" sanitation method. HP Secure Erase does not support platforms with Intel® Optane™.
3. Absolute agent is shipped turned off and will be activated when customers activate a purchased subscription. Subscriptions can be purchased for terms ranging multiple years. Service is limited, check with Absolute for availability outside the U.S. The Absolute Recovery Guarantee is a limited warranty. Certain conditions apply. For full details visit: http://www.absolute.com/company/legal/agreements/computrace-agreement. Data Delete is an optional service provided by Absolute Software. If utilized, the Recovery Guarantee is null and void. In order to use

the Data Delete service, customers must first sign a Pre-Authorization Agreement and either obtain a PIN or purchase one or more RSA SecurID tokens from Absolute Software.
4. Drive Lock is not supported on NVMe drives.
5. HP Connection Optimizer requires Windows 10.
6. Not available with PS/2 keyboard / mouse.
7. HP Presence Aware requires a proximity sensor that is available on select EliteBooks and requires Windows Hello for authentication.
8. HP Support Assistant requires Windows and Internet access.
9. HP Quick Drop requires Internet access and Windows 10 PC preinstalled with HP QuickDrop app and either an Android device (phone or tablet) running Android 7 or higher with the Android HP QuickDrop app, and /or an iOS device (phone or tablet) running iOS 12 or higher with the iOS HP QuickDrop app.
10. HP Smart Support is available to commercial customers through your HP Service Representative and HP Factory Configuration Services; or it can be downloaded at: http://www.hp.com/smart-support. HP Smart Support automatically collects the telemetry necessary upon initial boot of the product to deliver device-level configuration data and health insights.
11. HP Driver Packs not preinstalled, however available for download at http://www.hp.com/go/clientmanagement.
12. HP Manageability Integration Kit can be downloaded from http://www8.hp.com/us/en/ads/clientmanagement/overview.html.
13. Ivanti Management Suite subscription required.
14. HP Cloud Recovery is available for HP Elite and Pro desktops and laptops PCs with Intel® or AMD processors and requires an open, wired network connection. Note: You must back up important files, data, photos, videos, etc. before use to avoid loss of data. Detail please refer to: https://support.hp.com/us-en/document/c05115630.
15. HP Pro Security Edition is available preloaded on select HP PCs and includes HP Sure Click Pro and HP Sure Sense Pro. 3-year license required. The HP Pro Security Edition software is licensed under the license terms of the HP End User License Agreement (EULA) that can be found at: https://h30670.www3.hp.com/ecommerce/common/disclaimer.do#EN_US as modified by the following: "7. Term. Unless otherwise terminated earlier pursuant to the terms contained in this EULA, the license for the HP Pro Security Edition (HP Sure Sense Pro and HP Sure Click Pro) is effective upon activation and will continue for thirty-six (36) months thereafter ("Initial Term"). At the end of the Initial Term you may either (a) purchase a renewal license for the HP Pro Security Edition from HP.com, HP Sales or an HP Channel Partner, or (b) continue using the standard versions of HP Sure Click and HP Sure Sense at no additional cost with no future software updates or HP Support." HP Pro Security Edition is optimized for the SMB environment and ships pre-configured - manageability is optional. The HP Pro Security Edition supports a limited tool set that can be used by the HP Manageability Integration Kit which can be downloaded from http://www.hp.com/go/clientmanagement.
16. HP Client Security Manager Gen7 requires Windows and is available on the select HP Elite and Pro PCs.
17. HP Sure Sense is available on select HP PCs and is not available with Windows10 Home.
18. HP Sure Admin requires Windows 10, HP BIOS, HP Manageability Integration Kit from http://www.hp.com/go/clientmanagement and HP Sure Admin Local Access Authenticator smartphone app from the Android or Apple store.
19. HP Sure Click requires Windows 10. See https://bit.ly/2PrLT6A_SureClick for complete details.
20. HP Sure Start Gen6 is available on select HP PCs and requires Windows 10.
21. HP Sure Run Gen4 is available on select HP PCs and requires Windows 10.
22. HP Sure Recover Gen4 is available on select HP PCs and requires Windows 10 and an open network connection. You must back up important files, data, photos, videos, etc. before using HP Sure Recover to avoid loss of data. Network based recovery using Wi-Fi is only available on PCs with Intel Wi-Fi Module.

Features

ENVIRONMENTAL & INDUSTRY

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.

Features

HP EliteDesk 800 Desktop Mini G8 series

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® • 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.		
System Configuration	The configuration used for the Energy Consumption and Declared Noise Emissions data for the Desktop model is based on a "Typically Configured Desktop.		
Energy Consumption (in accordance with US ENERGY STAR® test method)	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Short idle)	7.795 watt	7.923 watt	7.573 watt
Normal Operation (Long idle)	6.931 watt	7.02 watt	6.746 watt
Sleep	0.8199 watt	0.851 watt	0.7776 watt
Off	0.6586 watt	0.672 watt	0.633 watt
	NOTE: Energy efficiency data listed is for an ENERGY STAR® certified 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® certified 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)	26.58095 BTU/hr	27.01743 BTU/hr	25.82393 BTU/hr
Normal Operation (Long idle)	23.63471 BTU/hr	23.9382 BTU/hr	23.00386 BTU/hr
Sleep	2.795859 BTU/hr	2.90191 BTU/hr	2.651616 BTU/hr
Off	2.245826 BTU/hr	2.29152 BTU/hr	2.15853 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	2.7	17	
Fixed Disk – Random writes	2.7	17	
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: Spare parts are available throughout the warranty period and or for up to "5" 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		

Features

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 a minimum of 35% post-consumer recycled plastic (by wt.); Including 10% ITE-derived post-consumer recycled plastic* • This product is 95.1% recycle-able when properly disposed of at end of life. ***NOTE:** Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard.		
Packaging Materials	**External:**	PAPER/Corrugated	405 g
		PAPER/Molded pulp	74 g
	Internal:	PLASTIC/Polyethylene low density	3 g
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)		

Features

Packaging 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)
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

Features

HP EliteDesk 800 Small Form Factor G8 series

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® • 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.		
System Configuration	The configuration used for the Energy Consumption and Declared Noise Emissions data for the Desktop model is based on a "Typically Configured Desktop.		
Energy Consumption (in accordance with US ENERGY STAR® test method)	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Short idle)	11.855 watt	11.867 watt	11.861 watt
Normal Operation (Long idle)	10.741 watt	10.789 watt	10.782 watt
Sleep	0.862 watt	0.866 watt	0.857 watt
Off	0.759 watt	0.762 watt	0.755 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)	40.42555 BTU/hr	40.46647 BTU/hr	40.44601 BTU/hr
Normal Operation (Long idle)	36.6268 BTU/hr	36.79049 BTU/hr	36.76662 BTU/hr
Sleep	2.9394 BTU/hr	2.95306 BTU/hr	2.92237 BTU/hr
Off	2.5881 BTU/hr	2.59842 BTU/hr	2.57455 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	3.1	20	
Fixed Disk–Random writes	3.5	23	
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: Spare parts are available throughout the warranty period and or for up to "5" 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)		

Features

	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 a minimum of 35% post-consumer recycled plastic (by wt.); Including 10% ITE-derived post-consumer recycled plastic* • This product is 95.1% recycle-able when properly disposed of at end of life. ***NOTE:** Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard.		
Packaging Materials	**External:**	PAPER/Corrugated	1158 g
	Internal:	PLASTIC/EPE (Expanded Polyethylene)	320 g
		PLASTIC/Polyethylene low density	28 g
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)		

Features

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

HP EliteDesk 800 Tower G8 series

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) • EPEAT Gold registered in the United States. See http://www.epeat.net for registration status in your country. • China Energy Conservation Program (CECP) • China State Environmental Protection Administration (SEPA) • Taiwan Green Mark • Korea Eco-label • Japan PC Green label*
Sustainable Impact Specifications	• Ocean-bound plastic in Bezel • 50% post-consumer recycled plastic • 80 Plus® Gold power supplies available • Low halogen • Outside Box and corrugated cushions are 100% sustainably sourced and recyclable • Molded Paper Pulp Cushion inside box is 100% sustainably sourced and recyclable • Recycled Plastic cushions
System Configuration	The configuration used for the Energy Consumption and Declared Noise Emissions data for the Desktop model is based on a Typically Configured Desktop.

Features

Energy Consumption (in accordance with US ENERGY STAR® test method)	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 60Hz**
Normal Operation (Short idle)	10.982 watt	11.285 watt	10.881 watt
Normal Operation (Long idle)	9.96 watt	10.203 watt	9.892 watt
Sleep	0.886 watt	0.888 watt	0.884 watt
Off	0.762 watt	0.764 watt	0.759 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, 60Hz**
Normal Operation (Short idle)	37.44862 BTU/hr	38.48185 BTU/hr	37.10421 BTU/hr
Normal Operation (Long idle)	33.97042 BTU/hr	34.79223 BTU/hr	33.7317 BTU/hr
Sleep	3.02126 BTU/hr	3.02808 BTU/hr	3.0144 BTU/hr
Off	2.59842 BTU/hr	2.60524 BTU/hr	2.5881 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	3.2	21
Fixed Disk–Random writes	3.3	22

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: Spare parts are available throughout the warranty period and or for up to “5” 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.

Features

	• This product contains a minimum of 35% post-consumer recycled plastic (by wt.); Including 10% ITE-derived post-consumer recycled plastic* • This product is 95.1% recycle-able when properly disposed of at end of life. ***NOTE:** Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard.		
Packaging Materials	**External:**	PAPER/Corrugated	1114 g
		PAPER/Molded Pulp	788 g
	Internal:	PLASTIC/Polyethylene low density - LDPE	44 g
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.		

Features

	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

Features

HP EliteOne 800 G8 23.8-in All-in-One

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 • TCO Certified Edge • China Energy Conservation Program (CECP) • China State Environmental Protection Administration (SEPA) • Taiwan Green Mark • 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		

Features

	• 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 “5” 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 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		

Features

	• 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

Features

HP EliteOne 800 G8 27 All-in-One PC

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) • US EPEAT® registration according to IEEE 1680.1-2019 EPEAT®. Status varies by country. See http://www.epeat.net for registration status by country. Search keyword generator on HP's 3rd party option store for solar generator accessories at http://www.hp.com/go/options. • TCO Certified Edge • China Energy Conservation Program (CECP) • China State Environmental Protection Administration (SEPA) • Taiwan Green Mark • 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, 60Hz**
Normal Operation (Short idle)	16.05 watt	16.14 watt	15.88 watt
Normal Operation (Long idle)	2.23 watt	2.32 watt	2.05 watt
Sleep	2.26 watt	2.28 watt	2.23 watt
Off	0.93 watt	0.94 watt	0.9 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, 60Hz**
Normal Operation (Short idle)	54.7305 BTU/hr	55.0374 BTU/hr	54.1508 BTU/hr
Normal Operation (Long idle)	7.6043 BTU/hr	7.9112 BTU/hr	6.9905 BTU/hr
Sleep	7.7066 BTU/hr	7.7748 BTU/hr	7.6043 BTU/hr
Off	3.1713 BTU/hr	3.2054 BTU/hr	3.069 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	15.2	
Fixed Disk – Random writes	2.5	15.2	
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:		

Features

	• 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 “5” 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 72.2% post-consumer recycled plastic (by wt.) *according to IEEE 1680.1-2018 standard, criterion 4.2.1.1.* • This product is 98% recycle-able when properly disposed of at end of life.		
Packaging Materials	**External:**	PAPER/Corrugated	1.510 g
	Internal:	PLASTIC/Polyethylene Expanded - EPE	1.520 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.		

Features

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/supplychain/gen_specifications.html): • Asbestos • Certain Azo Colorants • Certain Brominated Flame Retardants – may not be used as flame retardants in plastics • Cadmium • Chlorinated Hydrocarbons • Chlorinated Paraffins • Bis(2-Ethylhexyl) phthalate (DEHP) • Benzyl butyl phthalate (BBP) • Dibutyl phthalate (DBP) • Diisobutyl phthalate (DIBP) • Formaldehyde • Halogenated Diphenyl Methanes • Lead carbonates and sulfates • Lead and Lead compounds • Mercuric Oxide Batteries • Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user. • Ozone Depleting Substances • Polybrominated Biphenyls (PBBs) • Polybrominated Biphenyl Ethers (PBBEs) • Polybrominated Biphenyl Oxides (PBBOs) • Polychlorinated Biphenyl (PCB) • Polychlorinated Terphenyls (PCT) • Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications. • Radioactive Substances • Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)
Packaging Usage	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.

Features

HP, Inc. Corporate Environmental Information	For more information about HP's commitment to the environment: 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://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c04755842 and http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf

SERVICE AND SUPPORT

HP EliteDesk 800 G8 Tower PC

On-site Warranty[1]: Three-year (3-3-3) limited warranty delivers three years of on-site, next business day[2] service for parts and labor and includes free support 24 x 7[3]. Three-year onsite and labor are not available in all countries. Service offers terms up to 5 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.[4]

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. Technical telephone support applies only to HP-configured and third-party HP qualified hardware and software. Toll-free calling and 24 x 7 support may not be available in some countries.
4. 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.

HP EliteDesk 800 G8 Small Form Factor PC

On-site Warranty[1]: Three-year (3-3-3) limited warranty delivers three years of on-site, next business day[2] service for parts and labor and includes free support 24 x 7[3]. Three-year onsite and labor are not available in all countries. Service offers terms up to 5 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.[4]

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. Technical telephone support applies only to HP-configured and third-party HP qualified hardware and software. Toll-free calling and 24 x 7 support may not be available in some countries.
4. 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.

HP EliteDesk 800 G8 Desktop Mini PC

On-site Warranty[1]: Three-year (3-3-3) limited warranty delivers three years of on-site, next business day[2] service for parts and labor and includes free support 24 x 7[3]. Three-year onsite and labor are not available in all countries. Service offers terms up to 5 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.[4]

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. Technical telephone support applies only to HP-configured and third-party HP qualified hardware and software. Toll-free calling and 24 x 7 support may not be available in some countries.
4. 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.

HP EliteOne 800 G8 24 & 27 All-in-One PC

On-site Warranty[1]: Three-year (3-3-3) limited warranty delivers three years of on-site, next business day[2] service for parts and labor and includes free support 24 x 7[3]. Three-year onsite and labor are not available in all countries. Service offers terms up to 5 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.[4]

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. Technical telephone support applies only to HP-configured and third-party HP qualified hardware and software. Toll-free calling and 24 x 7 support may not be available in some countries.
4. 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® 11th Generation Core™ Processors

All HP EliteDesk 800 G8 Business PC models featuring this technology include processors that are part of the Intel® Stable Image Platform Program (SIPP) designed to ensure the stability promise inherent in the value proposition of the HP EliteDesk and EliteOne 800 G8 Business PC.

Intel® Management Engine (ME) v15 – An advanced set of remote management features and functionality which provides network administrators the latest and most effective tools to remotely discover, heal, and protect networked client systems regardless of the system's health or power state. AMT 15 includes the following advanced management functions:

- Support for configuration of Intel ME 15.0 capabilities
- No reset after provisioning
- Support for Intel Enterprise Digital Fence
- The Platform Discovery Utility can now discover these additional Intel products:
  - Public Key Infrastructure
- Profile Editor and Profile Editor Plugin Interface
- Required Permissions for Solutions Framework

DISPLAY PANEL SPECIFICATIONS

23.8" diagonal IPS widescreen WLED backlit anti-glare LCD (1920 x 1080) non-touch or optional Projected Capacitive Touch supports up to 10 touch-points

Non-Touch Support HW low blue light feature

Type	IPS WLED Backlit LCD
Active area (mm)	527.04 x 296.46
Native Resolution (HxV)	1920 x 1080
Refresh Rate	60 Hz @ 1920 x 1080
Aspect ratio	16:9
Pixel pitch (HxV)(mm)	0.2745 x 0.2745
Contrast ratio	1000:1
Brightness*	250nits
Viewing angle (HxV)	178 ° x 178 °
Backlight lamp life (to half brightness)	30,000 hours minimum
Color support	Up to 16.7 million colors with the use of FRC technology
Color gamut	NTSC 72%
Anti-glare	Yes*
Response Time	14ms
Default color temperature	Warm (6500K)

NOTE*: Actual brightness will be lower with touchscreen.

27.0" diagonal IPS widescreen WLED backlit anti-glare LCD (2560 x 1440) non Touch Support HW low blue light feature

Type	IPS WLED Backlit LCD
Active area (mm)	596.736 x 335.664
Native Resolution (HxV)	2560 x 1440
Refresh Rate	60 Hz @ 2560 x 1440
Aspect ratio	16:9
Pixel pitch (HxV)(mm)	0.2331 x 0.2331
Contrast ratio	1000:1
Brightness*	250nits
Viewing angle (HxV)	178° x 178°
Backlight lamp life (to half brightness)	30,000 hours minimum
Color support	Up to 16.7 million colors
Color gamut	NTSC 72%
Anti-glare	Yes*
Response Time	14ms
Default color temperature	Warm (6500K)

1. All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.
2. For All in One only Intel® HD Graphics (integrated).

NOTE*: Actual brightness will be lower with touchscreen.

Technical Specifications – Display Panel Specifications

Adjustable Height Stand:	Height - Vertical/Landscape Adjustment	130mm (±2 mm)
	Portrait Adjustment	No portrait
	Tilt Angle	-5° to +18° (±2°) in landscape and portrait
	Rotation (Swivel)	90° (±1°) (45 left, 45 right)
	Pivot	No pivot
Recline Stand:	Height - Vertical Adjustment	No height
	Tilt Angle	+36.5° to +58° (+/-1.5°)
	Rotation (swivel)	No swivel

GRAPHICS

HP EliteDesk 800 G8 Desktop Mini PC

Intel® HD Graphics (integrated)

VGA Controller	Integrated
DisplayPort™	Multimode capable; supports HDCP, Display Port Audio (2 streams), HBR2 link rates and Multi-Stream Technology for a maximum of 3 displays connected to any output controlled by Intel® Graphics
HDMI (optional)	Supports HDMI 2.0b features Supports HDCP 2.3 Supports audio over HDMI
VGA (optional)	VGA output
USB-C® DP Alt Mode (optional)	DisplayPort over the optional USB-C® module
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 16 bits/color
Graphics/Video API Support	HEVC 10b Enc/12b Dec HW VP9 12b Dec HW HDR Rec. 2020 DX12
Max. Resolution (VGA)	2048 x 1536@60Hz
Max. Resolution (HDMI)	4096 x 2160@60Hz
Max. Resolution (DP)	4096 x 2160@60Hz

Nvidia® GeFORCE® GTX1660 Ti

Architecture	Discrete GPU Nvidia® GPU drives the integrated panel and all of the graphics output ports
DisplayPort	Maximun pixel clock :1.3 GHz pixels per second Maximun bandwidth :25.92 Gbps per connector (FEC Disable)
HDMI	Supports HDMI 2.0b features Supports HDCP 2.2, HDR
Memory	6GByte, 192bit wide GDDR6
Maximum Color Depth	up to 12 bits/color
Graphics/Video API Support	DirectX 12 OpenGL 4.6
Display Port	Support DP1.4(DSC1.2a) Maximum pixel clock :1.3 GHz pixels per second Maximum bandwidth :25.92 Gbps per connector (FEC Disable)
Max. Resolution (HDMI)	4096 x 2160@60Hz
Max. Resolution (DP)	5120 x 3200@60Hz Example of maximum resolutions with CVT-RB timings
Port Availability	(3) Mini DP 1.4 ports and (1) Micro HDMI 2.0 port

Technical Specifications – Graphics

HP EliteDesk 800 G8 Tower PC

Intel® UHD Graphics (integrated)

VGA Controller	Integrated
DisplayPort™ 1.4	Multimode capable; supports HDCP, Display Port Audio (2 streams), HBR2 link rates and Multi-Stream Technology for a maximum of 3 displays connected to any output controlled by Intel® Graphics
HDMI (optional)	Supports HDMI 2.0b features Supports HDCP 2.3 Supports BT2020 and HDR playback (7th Gen processors only)
VGA (optional)	VGA ouput
USB-C® DP Alt Mode (optional)	DisplayPort over the optional USB-C® module
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 16 bits/color
Graphics/Video API Support	HEVC 10b Enc/12b Dec HW VP9 12b Dec HW HDR Rec. 2020 DX12
Max. Resolution (VGA)	2048 x 1536@60Hz
Max. Resolution (HDMI)	4096 x 2160@60Hz
Max. Resolution (DP)	4096 x 2160@60Hz

NVIDIA® GeForce® RTX 3070 Graphics Card LHR*

Engine Clock	1730 MHz
Memory Clock	8000 MHz
Memory Size(width)	8 GB (256-bit)
Memory Type	256M x 32 GDDR6
Max. Resolution (HDMI)	7680x4320@60Hz
Max. Resolution (DP)	7680x4320@60Hz
Multi Display Support	4 displays
HDCP Compliance	Yes
Rear I/O connectors (bracket)	HDMIx1+ DPx3
Cooling (active/passive)	Active fan-sink (Active cooling with dynamic speed)
Total power consumption (W)	<220W
PCB form-factor with bracket	ATX (Full height) PCB with ATX dual slot bracket

***NOTE:** LHR 25 MH/s ETH hash rate (est.)

AMD® Radeon™ RX 550X Graphics Card

Engine Clock	1183MHz
Memory Clock	6 Gbps
Memory Size (width)	4 GB (128-bit)
Memory Type	GDDR5
Max. Resolution (HDMI)	4096x2160 @ 60Hz
Max. Resolution (DP)	5120x2880 @ 60Hz
Multi Display Support	2 displays
HDCP Compliance	Yes

Technical Specifications – Graphics

Rear I/O connectors (bracket)	HDMI, DPx2
Cooling (active/passive)	Active fan-sink (Active cooling with dynamic speed)
Total power consumption (W)	<50W
PCB form-factor with bracket	LP (low profile) PCB with FH/LP bracket

NVIDIA® Quadro P620 Graphics Card

Engine Clock	1354 MHz
Memory Clock	2500 MHz
Memory Size (width)	2GB (128-bit)
Memory Type	128M x 32 GDDR5
Max. Resolution (DP)	5120x2880@60Hz
Multi Display Support	4 displays
HDCP Compliance	Yes
Rear I/O connectors (bracket)	mDPx4
Cooling (active/passive)	Active fan-sink (Active cooling with dynamic speed)
Total power consumption (W)	<40W
PCB form-factor with bracket	LP PCB with LP bracket

NVIDIA® Quadro P400 Graphics Card

Engine Clock	1252 MHz
Memory Clock	2000 MHz
Memory Size (width)	2GB (64-bit)
Memory Type	256M x 32 GDDR5
Max. Resolution (DP)	5120x2880@60Hz
Multi Display Support	3 displays
HDCP Compliance	Yes
Rear I/O connectors (bracket)	mDPx3
Cooling (active/passive)	Active fan-sink (Active cooling with dynamic speed)
Total power consumption (W)	<30W
PCB form-factor with bracket	LP PCB with LP bracket

AMD® Radeon™ R7 430 Graphics Card

Engine Clock	780 MHz
Memory Clock	1100 MHz
Memory Size (width)	2 GB (64-bit)
Memory Type	256M x 32 GDDR5
Max. Resolution (HDMI)	2048x1536
Max. Resolution (DP)	4096x2160@60Hz
Multi Display Support	2 displays
HDCP Compliance	Yes
Rear I/O connectors (bracket)	VGA+DP
Cooling (active/passive)	Active fan-sink (Active cooling with dynamic speed)
Total power consumption (W)	<50W
PCB form-factor with bracket	LP PCB with FH/LP bracket

Technical Specifications – Graphics

AMD® Radeon™ R7 430 Graphics Card	
Engine Clock	780 MHz
Memory Clock	1100 MHz
Memory Size (width)	2 GB (64-bit)
Memory Type	256M x 32 GDDR5
Max. Resolution (DP)	4096x2160@60Hz
Multi Display Support	2 displays
HDCP Compliance	yes
Rear I/O connectors (bracket)	DPx2
Cooling (active/passive)	Active fan-sink (Active cooling with dynamic speed)
Total power consumption (W)	<50W
PCB form-factor with bracket	LP PCB with FH/LP bracket

Technical Specifications – Graphics

HP EliteDesk 800 G8 Small Form Factor PC

Intel® HD Graphics (integrated)

VGA Controller	Integrated
DisplayPort™ 1.4	Multimode capable; supports HDCP, Display Port Audio (2 streams), HBR2 link rates and Multi-Stream Technology for a maximum of 3 displays connected to any output controlled by Intel® Graphics
HDMI (optional)	Supports HDMI 2.0b features Supports HDCP 2.3 Supports audio over HDMI
VGA (optional)	VGA Output
USB-C® DP Alt Mode (optional)	DisplayPort over the optional USB-C® module
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 16 bits/color
Graphics/Video API Support	HEVC 10b Enc/12b Dec HW VP9 12b Dec HW HDR Rec. 2020 DX12
Max. Resolution (VGA)	2048 x 1536@60Hz
Max. Resolution (HDMI)	4096 x 2160@60Hz
Max. Resolution (DP)	4096 x 2160@60Hz

AMD® Radeon™ R7 430 Graphics Card

Engine Clock	780 MHz
Memory Clock	1100 MHz
Memory Size (width)	1 GB (64-bit)
Memory Type	256M x 32 GDDR5
Max. Resolution (HDMI)	2048x1536
Max. Resolution (DP)	4096x2160@60Hz
Multi Display Support	2 displays
HDCP Compliance	Yes
Rear I/O connectors (bracket)	VGA+DP
Cooling (active/passive)	Active fan-sink (Active cooling with dynamic speed)
Total power consumption (W)	<50W
PCB form-factor with bracket	LP PCB with FH/LP bracket

AMD® Radeon™ R7 430 Graphics Card

Engine Clock	780 MHz
Memory Clock	1100 MHz
Memory Size (width)	1 GB (64-bit)
Memory Type	256M x 32 GDDR5
Max. Resolution (DP)	4096x2160@60Hz
Multi Display Support	2 displays
HDCP Compliance	yes
Rear I/O connectors (bracket)	DPx2
Cooling (active/passive)	Active fan-sink (Active cooling with dynamic speed)
Total power consumption (W)	<50W

Technical Specifications – Graphics

PCB form-factor with bracket	LP PCB with FH/LP bracket

AMD® Radeon™ RX550 Graphics Card

Engine Clock	1183MHz
Memory Clock	6 Gbps
Memory Size (width)	4 GB (128-bit)
Memory Type	GDDR5
Max. Resolution (HDMI)	4096x2160 @ 60Hz
Max. Resolution (DP)	5120x2880 @ 60Hz
Multi Display Support	2 displays
HDCP Compliance	Yes
Rear I/O connectors (bracket)	HDMI, DP
Cooling (active/passive)	Active fan-sink (Active cooling with dynamic speed)
Total power consumption (W)	<50W
PCB form-factor with bracket	LP (low profile) PCB with FH/LP bracket

AMD Radeon™ 520 Graphics Card

Engine Clock	780 MHz
Memory Clock	1100 MHz
Memory Size (width)	1 GB (32-bit)
Memory Type	256M x 32 GDDR5
Max. Resolution (DP)	2048x1536@60Hz
Multi Display Support	2 displays
HDCP Compliance	Yes
Rear I/O connectors (bracket)	VGA+DP
Cooling (active/passive)	Active fan-sink (Active cooling with dynamic speed)
Total power consumption (W)	<50W
PCB form-factor with bracket	LP PCB with FH/LP bracket

Technical Specifications – Graphics

HP EliteOne 800 G8 23.8-in All-in-One

Intel® UHD Graphics (integrated)

VGA Controller	Integrated
DisplayPort™ 1.4	Multimode capable; supports HDCP, Display Port Audio (2 streams), HBR2 link rates and Multi-Stream Technology for a maximum of 3 displays (including the integrated panel and all attached displays)
HDMI-in	Support HDMI-In
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 (VGA)	2048 x 1536@60Hz
Max. Resolution (HDMI)	4096 x 2160@60Hz
Max. Resolution (DP)	4096 x 2160@60Hz

STORAGE

500GB 7200RPM 3.5in SATA HDD

Capacity	500 GB
Rotational Speed	7,200 rpm
Interface	SATA 6.0 Gb/s
Buffer Size	32 MB
Logical Blocks	976,773,168
Seek Time	11 ms (Average)
Height	1 in/2.54 cm
Width	Media diameter: 3.5 in/8.89 cm Physical size: 4 in/10.2 cm
Operating Temperature	41° to 131° F (5° to 55° C)

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

1TB 7200RPM 3.5in SATA HDD

Capacity	1 TB
Rotational Speed	7,200 rpm
Interface	SATA 6 Gb/s
Buffer Size	64 MB
Logical Blocks	1,953,525,168
Seek Time	11 ms (Average)
Height	1 in/2.54 cm
Width (nominal)	Media diameter: 3.5 in/8.89 cm Physical size: 4 in/10.2 cm
Operating Temperature	41° to 131° F (5° to 55° C)

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

2TB 7200RPM 3.5in SATA HDD

Capacity	2 TB
Rotational Speed	7,200 rpm
Interface	SATA 6 Gb/s
Buffer Size	128 MB
Logical Blocks	3,907,050,336
Seek Time	11 ms (Average)
Height	1.028 in/26.11 mm
Width (nominal)	Media diameter: 3.5 in/88.9 mm Physical size: 4 in/102 mm
Operating Temperature	41° to 131° F (5° to 55° C)

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

500GB 7200RPM 2.5in SATA HDD

Capacity	500 GB
Rotational Speed	7,200 rpm
Interface	SATA 6 Gb/s
Buffer Size	Up to 128 MB
Logical Blocks	976,773,168
Seek Time	12 ms (Average)
Height	0.283 in/7.2 mm (Max.)
Width (nominal)	2.75 in/70 mm (nominal)
Operating Temperature	41° to 131° F (5° to 55° C)

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

1TB 7200RPM 2.5in SATA HDD

Capacity	1 TB
Rotational Speed	7,200 rpm
Interface	SATA 6 Gb/s
Buffer Size	Up to 128 MB
Logical Blocks	1,953,525,168
Seek Time	12 ms (Average)
Height	0.283 in/7.2 mm (Max.)
Width (nominal)	2.75 in/70 mm (nominal)
Operating Temperature	41° to 131° F (5° to 55° C)

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

2TB 5400RPM 2.5in SATA HDD

Capacity	2 TB
Rotational Speed	5,400 rpm
Interface	SATA 6 Gb/s
Buffer Size	128 MB
Logical Blocks	3,907,050,336
Seek Time	12 ms (Average)
Height	0.374 in/9.5 mm (nominal)
Width (nominal)	2.75 in/70 mm (nominal)
Operating Temperature	41° to 131° F (5° to 55° C)

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

500GB 7200RPM 2.5in Self Encrypted OPAL2 SATA HDD

Capacity	500 GB
Architecture	Self-Encrypting (SED) Solid State Drive with SATA interface
Interface	SATA 6 Gb/s
Buffer Size	128 MB
Logical Blocks	976,773,168
Seek Time	12 ms (Average)
Height	0.283 in/7.2 mm (Max.)
Width	2.75 in/70 mm (nominal)
Operating Temperature	41° to 131° F (5° to 55° C)

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

500GB 7200RPM 2.5in Self Encrypted Federal Information Processing Standard SATA HDD

Capacity	500 GB
Architecture	Self-Encrypting (SED) Solid State Drive with SATA interface
Interface	SATA 6 Gb/s
Buffer Size	128 MB
Logical Blocks	976,773,168
Seek Time	12 ms (Average)
Height	0.283 in/7.2 mm (Max.)
Width	2.75 in/70 mm (nominal)
Operating Temperature	41° to 131° F (5° to 55° C)

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

256GB M.2 2280 PCIe NVMe SSD

Drive Weight	< 10g
Capacity	256 GB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIE Gen3
Maximum Sequential Read	Up to 1600MB/s
Maximum Sequential Write	Up to 780MB/s
Logical Blocks	500,118,192
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	APST; ASPM L1.2; NVME spec 1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

512GB M.2 2280 PCIe NVMe SSD

Drive Weight	< 10g
Capacity	512 GB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIE Gen3
Maximum Sequential Read	Up to 1600MB/s
Maximum Sequential Write	Up to 860MB/s
Logical Blocks	1,000,215,216
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	APST; ASPM L1.2; NVME spec 1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

1TB M.2 2280 PCIe NVMe SSD

Drive Weight	< 10g
Capacity	1 TB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIE Gen3
Maximum Sequential Read	Up to 2200MB/s
Maximum Sequential Write	Up to 1800MB/s
Logical Blocks	1,000,215,216
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	APST; ASPM L1.2; NVME spec 1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

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

Drive Weight	< 10g
Capacity	256GB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIE Gen3
Maximum Sequential Read	Up to 2700MB/s
Maximum Sequential Write	Up to 1000MB/s
Logical Blocks	500,118,192
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	APST; ASPM L1.2; NVME spec 1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

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

Drive Weight	< 10g
Capacity	512 GB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIE Gen3
Maximum Sequential Read	Up to 2900MB/s
Maximum Sequential Write	Up to 1100MB/s
Logical Blocks	1,000,215,216
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	APST; ASPM L1.2; NVME spec 1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

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

Drive Weight	< 10g
Capacity	1 TB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIE Gen3
Maximum Sequential Read	Up to 3480MB/s
Maximum Sequential Write	Up to 3037MB/s
Logical Blocks	2,000,409,264
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	TRIM; ASPM L1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

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

Drive Weight	< 10g
Capacity	2 TB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIE Gen3
Maximum Sequential Read	Up to 3500MB/s
Maximum Sequential Write	Up to 3000MB/s
Logical Blocks	3,907,029,168
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	TRIM; ASPM L1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

256GB M.2 2280 PCIe NVMe Self Encrypted OPAL2 Three Layer Cell SSD

Drive Weight	< 10g
Capacity	256 GB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIE Gen3
Maximum Sequential Read	Up to 2700MB/s
Maximum Sequential Write	Up to 1000MB/s
Logical Blocks	500,118,192
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	APST; ASPM L1.2; NVME spec 1.2; TCG-OPAL2 security

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

512GB M.2 2280 PCIe NVMe Self Encrypted OPAL2 Three Layer Cell SSD

Drive Weight	< 10g
Capacity	512 GB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIE Gen3
Maximum Sequential Read	Up to 2900MB/s
Maximum Sequential Write	Up to 1100MB/s
Logical Blocks	1,000,215,216
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	APST; ASPM L1.2; NVME spec 1.2; TCG-OPAL2 security

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

256GB Intel® PCIe® NVMe™ QLC + 16 GB Intel® Optane™

Drive Weight	< 10g
Capacity	256 GB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIe Gen3
Maximum Sequential Read	Up to 1450MB/s
Maximum Sequential Write	Up to 500MB/s
Logical Blocks	500,118,192
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	TRIM; ASPM L1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

512GB Intel® PCIe® NVMe™ QLC + 32 GB Intel® Optane™

Drive Weight	< 10g
Capacity	512 GB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIe Gen3
Maximum Sequential Read	Up to 2400MB/s
Maximum Sequential Write	Up to 1300MB/s
Logical Blocks	1,000,215,215
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	TRIM; ASPM L1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

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

Drive Weight	< 10g
Capacity	256GB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIE Gen4
Maximum Sequential Read	Up to 6400MB/s
Minimum Sequential Write	Up to 2700MB/s
Logical Blocks	500,118,192
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	APST; ASPM L1.2; NVME spec 1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

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

Drive Weight	< 10g
Capacity	512 GB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIE Gen4
Maximum Sequential Read	Up to 6600MB/s
Maximum Sequential Write	Up to 5100MB/s
Logical Blocks	1,000,215,216
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	APST; ASPM L1.2; NVME spec 1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

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

Drive Weight	< 10g
Capacity	1 TB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIE Gen4
Maximum Sequential Read	Up to 7100MB/s
Maximum Sequential Write	Up to 5200MB/s
Logical Blocks	2,000,409,264
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	TRIM; ASPM L1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

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

Drive Weight	< 10g
Capacity	2 TB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIE Gen4
Maximum Sequential Read	Up to 7100MB/s
Maximum Sequential Write	Up to 5200MB/s
Logical Blocks	4,000,797,360
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	TRIM; ASPM L1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

OPTICAL DISC DRIVES

HP 9.5mm Slim DVD-ROM Drive

Height	9.5 mm height
Orientation	Either horizontal or vertical
Interface type	SATA/ATAPI
Dimensions (W x H x D)	5.04 x 0.37 x 5.0 in (128 x 9.5 x 127 mm) without bezel
Weight (max)	Up to 0.31 lb (140g) without bezel
Read Speeds	DVD+R/-R/+RW/ -RW/+R DL /-R DL Up to 8X DVD-ROM Up to 8X CD-ROM, CD-R Up to 24X CD-RW Up to 24X
Access time	Random: DVD-ROM: 170 ms (typical), CD-ROM: 170 ms (typical)

Technical Specifications – Storage

(typical reads, including settling)	Full stroke: DVD-ROM: 320 ms (typical), CD-ROM: 320 ms (typical)
Power	Source Slimline SATA DC power receptacle DC Power Requirement 5 VDC ± 5%-100 mV ripple p-p DC Current 5 VDC (< 1000 mA typical, 1600 mA maximum)
Environmental conditions (operating - non-condensing)	Temperature 41° to 122° F (5° to 50° C) Relative Humidity 10% to 80% Maximum Wet Bulb Temperature 84° F (29° C)

HP 9.5mm Slim DVD Writer Drive

Height	9.5 mm height
Orientation	Either horizontal or vertical
Interface type	SATA/ATAPI
Disc recording capacity	Up to 8.5 GB DL or 4.7 GB standard
Dimensions (W x H x D)	5.04 x 0.37 x 5.0 in (128 x 9.5 x 127 mm) without bezel
Weight (max)	0.31 lb (140 g)
Write Speeds	DVD-R DL - Up to 6X DVD+R - Up to 8X DVD+RW - Up to 8X DVD+R DL - Up to 6X DVD-R - Up to 8X DVD-RW - Up to 6X CD-R - Up to 24X CD-RW - Up to 10X DVD-RW, DVD+RW - Up to 8X
Read Speeds	DVD-R DL, DVD+R DL - Up to 8X DVD+R, DVD-R - Up to 8X DVD-ROM DL, DVD-ROM - Up to 8X CD-ROM, CD-R - Up to 24X CD-RW - Up to 24X
Access time (typical reads, including settling)	Random DVD-ROM: 170 ms (typical), CD-ROM: 170 ms (typical) Full Stroke DVD-ROM: 320 ms (typical), CD-ROM: 320 ms (typical) Stop Time 6 seconds (typical)
Power	Source Slimline SATA DC power receptacle DC Power Requirement 5 VDC ± 5%-100 mV ripple p-p DC Current 5 VDC (< 1000 mA typical, 1600 mA maximum)
Environmental conditions (operating - non-condensing)	Temperature 41° to 122° F (5° to 50° C) Relative Humidity 10% to 80% Maximum Wet Bulb Temperature 84° F (29° C)

NETWORKING AND COMMUNICATIONS

Intel® I219-LM 1 Gigabit Network Connection LOM (vPro)	
Connector	RJ-45
System Interface	PCI (Intel proprietary) + SMBus
Data rates supported	10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14) 100 Mbit/s operation (100BASE-TX; IEEE 802.3u; IEEE 802.3 clauses 21-30) 1000 Mbit/s operation (1000BASE-T; IEEE 802.3ab; IEEE 8023 clauses 40) Auto-Negotiation (Automatic Speed Selection) Full Duplex Operation at all Speeds, Half Duplex operation at 10 and 100 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)
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® vPro® support with appropriate Intel® chipset components

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

Technical Specifications – Networking and Communications

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® vPro® support with appropriate Intel® chipset components

Technical Specifications – Networking and Communications

Intel® i210 10/100/1000 NIC	
Connector	RJ-45
System Interface	PCI (Intel proprietary) + SMBus
Data rates supported	10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14) 100 Mbit/s operation (100BASE-TX; IEEE 802.3u; IEEE 802.3 clauses 21-30) 1000 Mbit/s operation (1000BASE-T; IEEE 802.3ab; IEEE 8023 clauses 40) Auto-Negotiation (Automatic Speed Selection) Full Duplex Operation at all Speeds, Half Duplex operation at 10 and 100 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)
Performance	TCP/IP/UDP Checksum Offload (configurable) Protocol Offload (ARP & NS) Large send offload and Giant send offload Receiving Side Scaling 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 standby and hibernation (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® vPro® support with appropriate Intel® chipset components

Technical Specifications – Networking and Communications

Intel Wi-Fi 6 AX201 + BT5.1 (802.11ax 2x2, vPro, supporting gigabit data rate*) vPro **NOTE*** 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.	
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	Wi-Fi CERTIFIED™
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 and Wi-Fi CERTIFIED™ 64/128bit 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 • WPA3 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[2]	• 802.11b : +17dBm minimum • 802.11g : +16dBm minimum • 802.11a : +17dBm minimum • 802.11n HT20(2.4GHz) : +14dBm minimum • 802.11n HT40(2.4GHz) : +13dBm minimum • 802.11n HT20(5GHz) : +14dBm minimum • 802.11n HT40(5GHz) : +13dBm minimum • 802.11ac VHT80(5GHz) : +10dBm minimum • 802.11ac VHT160(5GHz) : +10dBm minimum • 802.11ax HE40(2.4GHz) : +12dBm minimum

	• 802.11ax HE80(5GHz) : +10dBm minimum • 802.11ax HE160(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: 10mW • Radio disabled: 8 mW	
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode	
Receiver Sensitivity[3]	•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(VHT80): -84dBm maximum • 802.11ac, MCS9(VHT80): -59dBm maximum • 802.11ac, MCS9(VHT160): -58.5dBm maximum •802.11ax, MCS11(HE40): -57dBm maximum •802.11ax, MCS11(HE80): -54dBm maximum •802.11ax, MCS11(HE160): -53.5dBm 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 White – 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 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 Bluetooth® component shall operate as a Class II Bluetooth® device with a maximum transmit power of +9.5 dBm for BR and EDR.	

Technical Specifications – Networking and Communications

Power Consumption	Peak (Tx) 330 mW Peak (Rx) 230 mW Selective Suspend 17 mW
Bluetooth® Software Supported Link Topology	Microsoft Windows Bluetooth® Software
Power Management	Microsoft Windows ACPI, and USB Bus Support
Certifications	FCC (47 CFR) Part 15C, Section 15.247 & 15.249
Power Management Certifications	ETS 300 328, ETS 300 826 Low Voltage Directive IEC950 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) BT5.1 ESR9/10 Compliance LE Advertisement Extensions Channel Selection Algo Limited High Duty Cycle Non-Connectable Advertising 2Mbps LE LE Long Range
Security & Manageability	Intel® vPro® support with appropriate Intel® chipset components

Intel Wi-Fi 6 AX201 + BT5.1 (802.11ax 2x2, non-vPro, supporting gigabit data rate*) non-vPro	
NOTE* 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.	
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

Technical Specifications – Networking and Communications

	IEEE 802.11v
Interoperability	Wi-Fi CERTIFIED™
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[2]	• 802.11b: +17dBm minimum • 802.11g: +16dBm minimum • 802.11a: +17dBm minimum • 802.11n HT20(2.4GHz): +14dBm minimum • 802.11n HT40(2.4GHz): +13dBm minimum • 802.11n HT20(5GHz): +14dBm minimum • 802.11n HT40(5GHz): +13dBm minimum • 802.11ac VHT80(5GHz): +10dBm minimum • 802.11ac VHT160(5GHz): +10dBm minimum • 802.11ax HE40(2.4GHz): +12dBm minimum • 802.11ax HE80(5GHz): +10dBm minimum • 802.11ax HE160(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:10mW • Radio disabled 8 mW
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity[3]	•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(VHT80): -84dBm maximum

	• 802.11ac, MCS9(VHT80): -59dBm maximum • 802.11ac, MCS9(VHT160): -58.5dBm maximum •802.11ax, MCS11(HE40): -57dBm maximum •802.11ax, MCS11(HE80): -54dBm maximum •802.11ax, MCS11(HE160): -53.5dBm 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 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 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 Bluetooth® component shall operate as a Class II Bluetooth® 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 Bluetooth® Software	
Power Management	Microsoft Windows ACPI, and USB Bus Support	
Certifications	FCC (47 CFR) Part 15C, Section 15.247 & 15.249	
Power Management Certifications	ETS 300 328, ETS 300 826 Low Voltage Directive IEC950 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) BT5.1 ESR9/10 Compliance LE Advertisement Extensions Channel Selection Algo Limited High Duty Cycle Non-Connectable Advertising 2Mbps LE LE Long Range

Realtek RTL8852AE 802.11ax 2x2 Wi-Fi + BT5.2 (802.11ax 2x2, supporting gigabit data rate*) **NOTE*** Wi-Fi 5 or 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**.**	
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	Wi-Fi CERTIFIED™ modules
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) • 802.11ax : MCS0 ~ MCS11, (1SS and 2SS) (20MHz, 40MHz, ,80MHz)
Modulation	Direct Sequence Spread Spectrum BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024QAM
Security[3]	• IEEE and Wi-Fi CERTIFIED™ 64 / 128 bit WEP encryption for a/b/g mode only • AES-CCMP: 128 bit in hardware • 802.1x authentication

Technical Specifications – Networking and Communications

	• WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. • WPA2 certification • WPA3 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[2]	• 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 • 802.11ax HE40(2.4GHz) : +10dBm minimum • 802.11ax HE80(5GHz) : +10dBm minimum	
Power Consumption	• Transmit mode:2.5 W • Receive mode:2 W • Idle mode (PSP) 180 mW (WLAN Associated) • Idle mode :50 mW (WLAN unassociated) • Connected Standby/Modern Standby: 10mW • Radio disabled: 8 mW	
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode	
Receiver Sensitivity[3]	• 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(HE40): -57dBm maximum • 802.11ax, MCS11(HE80): -54dBm 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	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 Bluetooth® 4.0/4.1/4.2/5.0/5.1/5.2 Wireless Technology		

Technical Specifications – Networking and Communications

Bluetooth® Specification	4.0/4.1/4.2/5.0/5.1/5.2 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 Bluetooth® component shall operate as a Class II Bluetooth® device with a maximum transmit power of +4 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 Bluetooth® Software
Power Management	Microsoft Windows ACPI, and USB Bus Support
Certifications	FCC (47 CFR) Part 15C, Section 15.247 & 15.249
Power Management Certifications	ETS 300 328, ETS 300 826 Low Voltage Directive IEC950 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) BT5.1 ESR9/10 Compliance LE Advertisement Extensions Channel Selection Algo Limited High Duty Cycle Non-Connectable Advertising 2Mbps LE LE Long Range

I/O DEVICES

HP Wired Desktop 320K Keyboard		
Physical Characteristics	Keys	104, 105, 107, 109 layout (depending on country)
	Dimensions (L x W x H)	16.77 x 4.36 x 0.65 in (426.2 x 110.9 x 16.7 mm)
	Weight	14.57 oz (413g)
	Cable length	6 ft. (1.8 m)
Electrical	Operating voltage	5V
	Power consumption	50mA - 100 mA
	System interface	USB
Mechanical	Keycaps	Low-profile design
	Switch actuation	60±10g nominal peak force with tactile feedback
	Switch life	10 million keystrokes (Life tester)
	Switch type	Plunger
Environmental		
	Operating temperature	50° to 122° F (10° to 50° C)
	Non-operating temperature	-22° to 149° F (-30° to 65° C)
	Operating humidity	10% to 90% (non-condensing at ambient)
	Non-operating humidity	0% to 90% (non-condensing at ambient)
Approvals	FCC, ICES, CULus, CE, GS, EAC, Ukraine, India BIS, KCC, RCM, BSMI, VCCI	
Ergonomic compliance	TUVGS	
Kit contents	Keyboard, QSP, Warranty Card, Product Notice	

HP USB Premium Keyboard		
Physical Characteristics	Keys	104, 105 layout (depending upon country)
	Dimensions (L x W x H)	17.04 x 5.55 x 0.52 in (433 x 141 x13.2 mm)
	Weight	1.54 lb. (698g)
Electrical	Operating voltage	5 VDC, +/-5%
	Power consumption	35mA (All LED on)
	System interface	USB Type A plug connector
	ESD	Contact Discharge: 8 KV Air Discharge: 15 KV
	EMI - RFI	Conforms to FCC rules for a Class B computing device
	Microsoft® PC 99 - 2001	Functionally compliant
Mechanical	Keycaps	Low-profile design
	Switch actuation	60±10g nominal peak force with tactile feedback

Technical Specifications – Input/Output Devices

	Switch life	10 million keystrokes (Life tester)
	Switch type	Contamination-resistant switch membrane
	Key-leveling mechanisms	For all double-wide and greater-length keys
	Cable length	6 ft. (1.8 m)
	Microsoft PC 99 - 2001	Mechanically compliant
Environmental	Acoustics	43-dBA maximum sound pressure level
	Operating temperature	50° to 122° F (10° to 50° C)
	Non-operating temperature	-22° to 140° F (-30° to 60° C)
	Operating humidity	10% to 90% (non-condensing at ambient)
	Non-operating humidity	20% to 80% (non-condensing at ambient)
	Operating shock	40 g, six surfaces
	Non-operating shock	80 g, six surfaces
	Operating vibration	2-g peak acceleration
	Non-operating vibration	4-g peak acceleration
	Drop (out of box)	26 in (66 cm) on carpet, six-drop sequence
	Drop (in box)	30 in (76.2 cm) on concrete, 16-drop sequence
Approvals	UL, FCC, CE Mark, TUV GS, VCCI, BSMI, RCM, KCC	
Ergonomic compliance	TUVGS	
Kit contents	Keyboard, QSP	
Warranty Card	Product Notice	

HP Wired Desktop 320M Mouse		
Dimensions (H x L x W)	4.08 x 2.49 x 1.39 in (103.8 x 63.4 x 35.5 mm)	
Weight	2.67 oz (75.8 g)	
Mechanical	Connector	USB
	Resolution	1000 DPI
	Sensor	Optical Red Sensor
Tracking speed	Tracking acceleration	8G(max), 1G=9.8m/s2
	Cable length	6 ft. (1.8 m)
	Color	Jack Black
Regulatory approvals	Compliant	FCC, ICES, CULus, CE, GS, EAC, Ukraine. India BIS, KCC, RCM, BSMI, VCCI

HP USB Premium Mouse		
Dimensions (H x L x W)	4.21 x 2.64 x 1.52 in (107 x 67 x 38.7 mmm)	
Weight	0.19lb (90g)	
Environmental	Operating temperature	50° to 122°F (10° to 50° C)
	Non-operating temperature	-22° to 140°F (-30° to 60° C)
	Operating humidity	10% to 90% (non-condensing at ambient)
	Non-operating humidity	20% to 80% (non-condensing at ambient)
	Operating shock	50 g, 6 surfaces
	Non-operating shock	80 g, 6 surfaces
	Operating vibration	2 g peak acceleration
	Non-operating vibration	4 g peak acceleration
Electrical	Operating voltage	5 VDC, +/-5%
	Power consumption	12mA
Mechanical	Connector	USB 2.0
	Type	3D mouse (3 keys and wheel)
	Resolution	800, 1200, 1600 DPI
	Sensor	Pixart PAN3606DL
Tracking speed	Tracking acceleration	8G(max), 1G=9.8m/s2
	Cable length	6 ft. (1.8 m)
	Color	Jack Black
Regulatory approvals	Compliant	UL, FCC, CE Mark, TUV GS, VCCI, BSMI, RCM, KCC

HP USB Mouse		
Dimensions (H x L x W)	37mm x 115mm x 62.9mm	
Weight	90 +10g/- 5 g	
Color	Black	
Connector	USB	
Mechanical	Resolution	800 DPI sensitivity
	Buttons	Two primary buttons and clickable scroll wheel

AUDIO/MULTIMEDIA

HP EliteDesk 800 G8 Tower PC

Type	Integrated
HD Stereo Codec	Realtek ALC3205
Audio I/O Ports	Front: Headset connector supports a CTIA and OMTP style headset and is re-taskable as a Line-in, Line-out, Microphone-in or Headphone-out port
Internal Speaker Amplifier	2W class D mono amplifier for the internal speaker only. External speakers must be powered
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 speaker.
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)

HP EliteDesk 800 G8 Small Form Factor PC

Type	Integrated
HD Stereo Codec	Realtek ALC3205
Audio I/O Ports	Front: Headset connector supports a CTIA and OMTP style headset and is re-taskable as a Line-in, Line-out, Microphone-in or Headphone-out port
Internal Speaker Amplifier	2W class D mono amplifier for the internal speaker only. External speakers must be powered
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 speaker.
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 96 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

HP EliteDesk 800 G8 Desktop Mini PC

Type	Integrated
HD Stereo Codec	Realtek ALC3205
Audio I/O Ports	combo audio jack with CTIA and OMTP headset support
Internal Speaker Amplifier	2W class D mono amplifier for the internal speaker only. External speakers must be powered
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 speaker.
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

Technical Specifications – Audio/Multimedia

HP EliteOne 800 G8 24 & 27 All-in-One

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

INTEGRATED WEBCAM AND MICROPHONE

Integrated Webcam and Microphone
Optional integrated 5 MP Full HD RGB webcam & microphone; maximum resolution of 2592 x 1944
Optional integrated 5 MP Full HD RGB dual-facing webcam with IR sensor (user-facing) & microphone; maximum resolution of 2592 x 1944

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.

INTEGRATED FINGERPRINT SENSOR

Sensor type: Touch
Fingerprint matching: Performed on device
Anti-Spoofing: Yes
Windows Hello Support: Yes
Encryption: On sensor
FIPS Compliant: No

POWER

HP EliteDesk 800 G8 Tower PC

Unit Environment and Operating Conditions

Temperature Range	Operating: 5°C ~35°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)

HP EliteDesk 800 G8 SFF PC

Unit Environment and Operating Conditions

Temperature Range	Operating: 5°C ~35°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)

HP EliteDesk 800 G8 Desktop Mini PC (35W)

Unit Environment and Operating Conditions

Temperature Range	Operating: 5°C ~35°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)

HP EliteDesk 800 G8 Desktop Mini (65W)

Unit Environment and Operating Conditions

Temperature Range	Operating: 5°C ~35°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)

Technical Specifications – Power

HP EliteOne 800 G8 24 & 27 All-in-One

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)

	DM	SFF	TWR	AiO
External Power Supplies	90W EPS, active PFC, 88% average efficiency at 115V & 89% at 230Vac 120W EPS, active PFC, 88% average efficiency at 115V & 89% at 230Vac 180W EPS, active PFC, 88% average efficiency at 115V & 89% at 230Vac	N/A	N/A	N/A
80 PLUS Gold	N/A	N/A	N/A	N/A
80 PLUS Platinum	N/A	260W 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)	550W active PFC / 80 PLUS Platinum 260W 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)	210W 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	90Vac~264Vac	90Vac~264Vac	90Vac~264Vac
Rated Voltage Range	100Vac~240Vac	100Vac~240Vac	100Vac~240Vac	100Vac~240Vac
Rated Line Frequency	50HZ~60HZ	50HZ~60HZ	50HZ~60HZ	50HZ~60HZ
Operating Line Frequency	47HZ~63HZ	47HZ~63HZ	47HZ~63HZ	47HZ~63HZ
Rated Input Current				
Rated Input Current with Energy Efficient* Power Supply	90W≦1.7A 120W≦1.7A 180W≦2.5A	260W Platinum≦3.1A 350W Platinum≦4A	260W Platinum≦3.1A 350W Platinum≦4A 550W Platinum≦6.6A	210W ≦2.8A
DC Output	+19.5V	+12V	+12V	+20V

Technical Specifications – Power

	DM	SFF	TWR	AiO
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.	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.	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.	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 Supply Fan	N/A	70mm variable speed	70mm variable speed	N/A
Power cord length	6.0 ft. (1.83 m)	6.0 ft. (1.83 m)	6.0 ft. (1.83 m)	6.0 ft. (1.83 m)
External Power Adapter	External power	Internal power	Internal power supply	Internal power supply
Dimensions	90W: 127mm x 51mm x 30mm 120W: 138mm x 68.5mm x 25.4mm 180W: 165.5mm x 79mm x 25.4mm	165mm x 95mm x 73mm	165mm x 95mm x 73mm	110x110x26mm
Total Cord Length	6.0 ft. (1.83 m)	6.0 ft. (1.83 m)	6.0 ft. (1.83 m)	6.0 ft. (1.83 m)

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

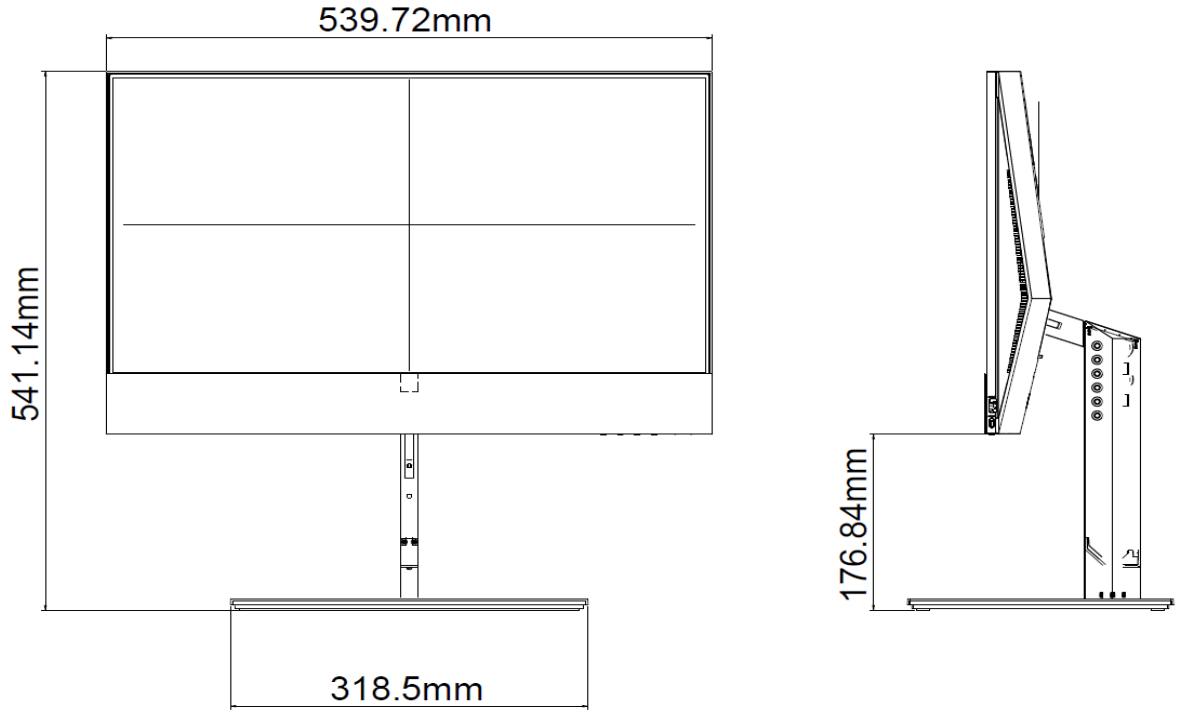
WEIGHTS & DIMENSIONS

	DM	SFF	TWR	AiO
Chassis (W x D x H)	6.97 x 6.89 x 1.35 in 177 x 175 x 34 mm	13.3 x 12.13 x 3.94 in 338 x 308 x 100 mm	6.61 x 12.13 x 14.57 in 168 x 308 x 370 mm	See table below.
System Volume	63.4 cu in 1.05L	63.4 cu in 10.4 L	1168 cu in 19.14 L	See table below.
System Weight	3.13 lb 1.42 kg	13.5 lb 6.13 kg	13.11 lb 5.95 kg	See table below.
Max Supported Weight (desktop orientation)	0	77 lb 35 kg	77 lb 35 kg	See table below.
Stand Dimensions	160 x 117 x 18.5 mm	151.8 x 200 x 37.2mm	N/A	See table below.
Packaging (W x D x H)	19.6 x 5.2 x 9.3 in 498 x132 x 235 mm	15.71 x 19.65 x 9.06 in 399 x 499 x 230 mm	11.77 x 18.82 x 20.35 in 299 x 478 x 517 mm	See table below.
Shipping Weight	2.95 kg 6.49 lb	9 kg 19.82 lb	11.34 kg 24.98 lb	See table below.
Multipack Packaging (10 units)	20.28 x16.54 x 25 in 515 x 420 x 636 mm			
Palletization Profile	10-units per layer 10 layers max 100 units per pallet 46.3 x 39.2 x 57.7 in, 1175 x 996 x 2125 mm (include pallet)	6 units per layer 10 layers max 60 units per pallet 1200 x 1000 x 2438 mm (include the pallet)	8 units per layer 4 layers ax 32 units per pallet 1200 x 1000 x 2203 mm (include the pallet)	10-units per layer 4-layers max 40-units per pallet (sea) 1200 x 1000 x 2470 mm

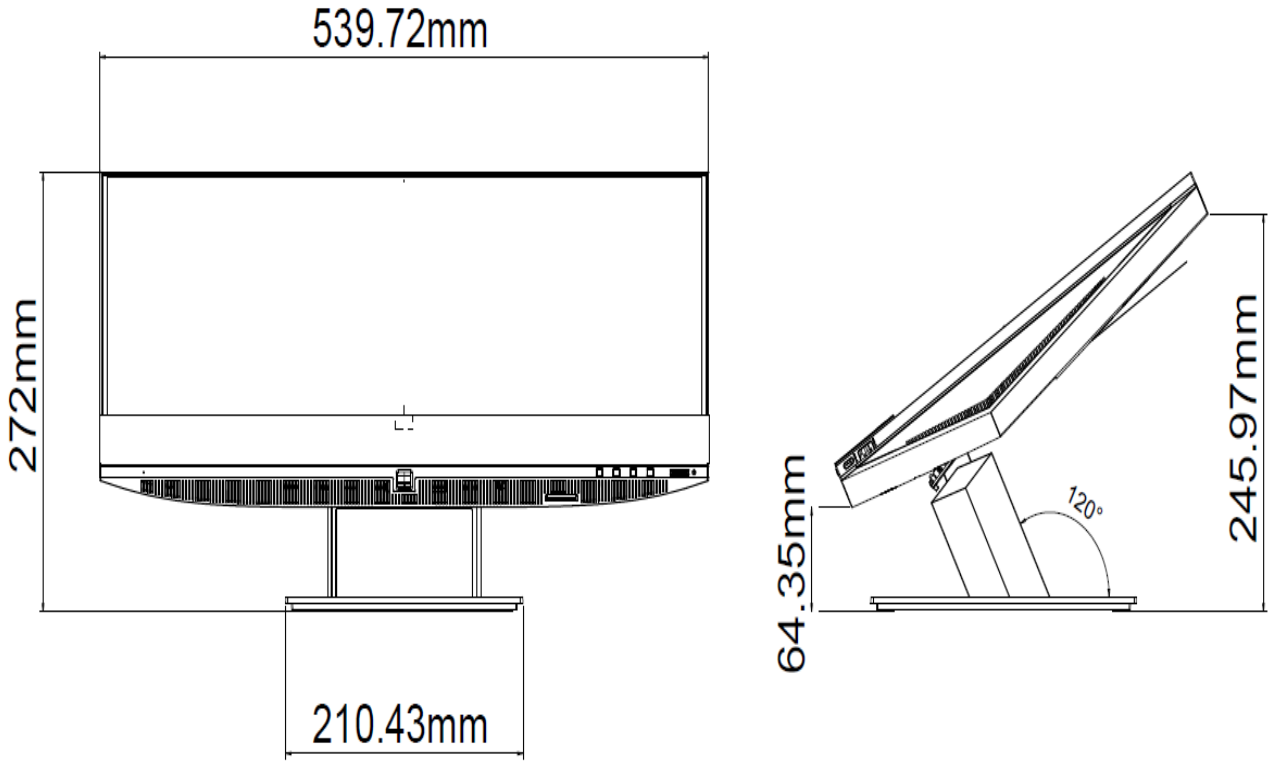
Technical Specifications – Weights and Dimensions

STANDS AND DIMENSIONS

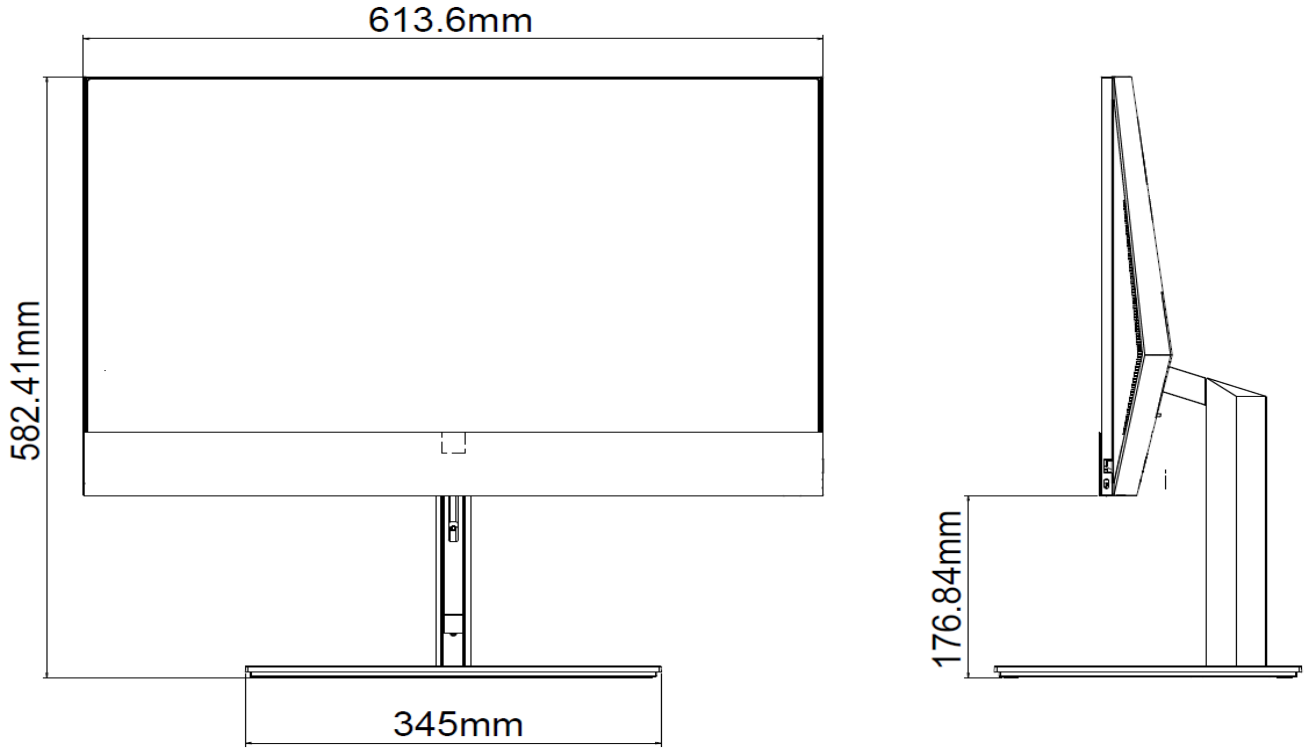
HP EliteOne G6 AIO Adjustable Height Stand – 23.8”



HP EliteOne G6 AIO Recline Stand – 23.8”



HP EliteOne G6 AIO Adjustable Height Stand – 27”



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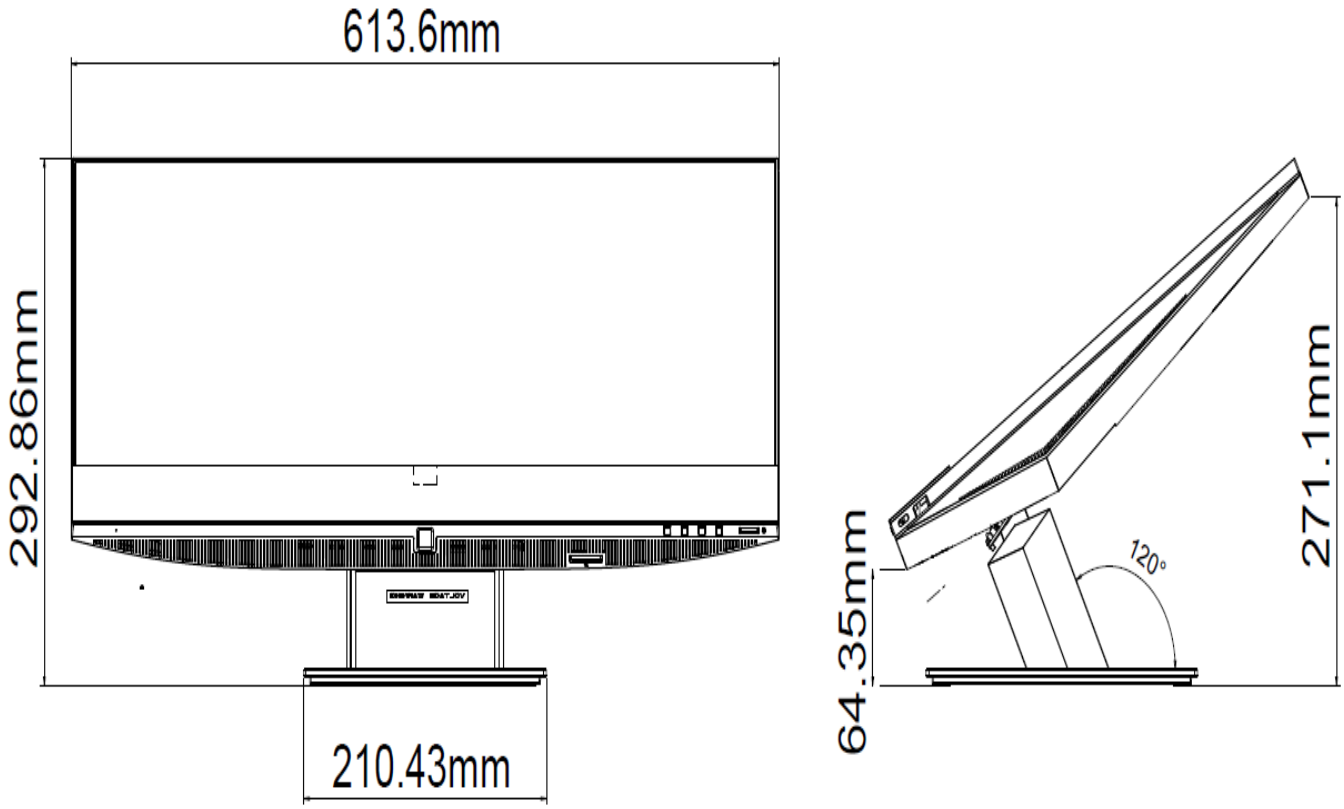
HP EliteOne G6 AIO Recline Stand – 27”



Technical Specifications – Weights and Dimensions

Adjustable Height Stand:	Height - Vertical/Landscape Adjustment	130mm (±2 mm)
	Portrait Adjustment	No portrait
	Tilt Angle	-5° to +18° (±2°) in landscape and portrait
	Rotation (Swivel)	90° (±1°) (45 left, 45 right)
	Pivot	No pivot

Recline Stand:	Height - Vertical Adjustment	No height
	Tilt Angle	+36.5° to +58° (+/-1.5°)
	Rotation (swivel)	No swivel

Technical Specifications – Weights and Dimensions

ALL-IN-ONE WEIGHTS AND DIMENSIONS

Weight without Touch Panel – 23.8”

Product Weight Unboxed	Without Stand 15.12 lbs. 6.86 kg	Adjustable Height Stand 20.46 lbs. 9.28 kg	Recline Stand 18.83 lbs. 8.54 Kg
Shipping Weight Boxed	Without Stand 19.51 lbs. 8.85 kg	Adjustable Height Stand 24.85 lbs. 11.27 kg	Recline Stand 23.08 lbs. 10.47 kg
Shipping Weight Pallet (30 units)	Without Stand 623.7 lbs. 283.5 kg	Adjustable Height Stand 783.4 lbs. 356.1 kg	Recline Stand 730.62 lbs. 332.1 kg

Weight with Touch Panel – 23.8”

Product Weight Unboxed	Without Stand 17.50 lbs. 7.94 kg	Adjustable Height Stand 22.84 lbs. 10.36 kg	Recline Stand 21.21 lbs. 9.62 Kg
Shipping Weight Boxed	Without Stand 21.89 lbs. 9.93 kg	Adjustable Height Stand 27.23 lbs. 12.35kg	Recline Stand 25.46 lbs. 11.55 kg
Shipping Weight Pallet (30 units)	Without Stand 694.98 lbs. 315.9 kg	Adjustable Height Stand 854.7lbs. 388.5kg	Recline Stand 801.9lbs. 364.5 kg

Dimensions (W x D x H) – 23.8”

Product Dimensions (Non-touch)	Without Stand 539.72 x 364.3 x 57.3 mm	Adjustable Height Stand (-5 ~ 20) degrees 539.72 x 541.14 x 236.98 mm	Recline Stand Stand (30 ~ 60) degrees 539.72 x 379.44 x 209.35 mm
Product Dimensions (In-cell Touch)	Without Stand 539.72 x 364.3 x 59.3 mm	Adjustable Height Stand (-5 ~ 20) degrees 539.72 x 541.14 x 236.98 mm	Recline Stand Stand (30 ~ 60) degrees 539.72 x 379.44 x 211.35 mm

Shipping Dimensions – 23.8”

Shipping Dimensions Boxed	Without Stand 628 x 186 x 635 mm	Adjustable HeightStand 628 x 186 x 635 mm	Recline Stand 628 x 186 x 635 mm
Shipping Dimensions Pallet Pallet (40 units)	Without Stand 1180 x 874 x 2060 mm	Adjustable Height 1180 x 874 x 2060 mm	Recline Stand 1180 x 874 x 2060 mm

Technical Specifications – Weights and Dimensions

Weight without Touch Panel – 27”

Product Weight Unboxed	Without Stand 17.79 lbs. 8.07 kg	Adjustable Height Stand 23.63 lbs. 10.72 kg	Recline Stand 21.50 lbs. 9.75 Kg
Shipping Weight Boxed	Without Stand 23.70 lbs. 10.75 kg	Adjustable Height Stand 29.54 lbs. 13.4 kg	Recline Stand 27.40 lbs. 12.43 kg
Shipping Weight Pallet (18 units)	Without Stand 465.3 lbs. 211.5 kg	Adjustable Height Stand 570.24 lbs. 259.2 kg	Recline Stand 531.83 lbs. 241.74 kg

Shipping Dimensions – 27”

Shipping Dimensions Boxed	Without Stand 742 x 237 x 640 mm	Adjustable Height Stand 742 x 237 x 640 mm	Recline Stand 742 x 237 x 640 mm
Shipping Dimensions Pallet Pallet (18 units)	Without Stand 1180 x 958 x 2076 mm	Adjustable Height 1180 x 958 x 2076 mm	Recline Stand 1180 x 958 x 2076 mm

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
- Tool-less Hard Drive, CD & Diskette Removal (For MT, SFF, and DM only)
- Green Pull Tabs, and Quick Release Latches for easy Identification

Technical Specifications – Miscellaneous Features

Additional Features	Description
Tower Orientation	Product can be oriented as either a desktop (horizontal) or a tower (vertical) for MT, SFF, and DM only. SFF/DM requires optional stand.
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	DM	SFF	TWR	AiO	Part Number
AMD® Radeon™ RX 550X 4GB Display Port Card		X			5LH79AA
AMD® Radeon™ R7 430 2GB 2 Display Port Card		X	X		5JW82AA
AMD® Radeon™ R7 430 2GB DP+VGA Card		X	X		5JW81AA

Desktop Mini Accessories	DM	SFF	MT	AiO	Part Number
HP Desktop Mini Port Cover v3	X (95W and discrete GPU skus not supported)				13L69AA
HP Desktop Mini 2.5" SATA Drive Bay kit v2	X (95W and discrete GPU skus not supported)				13L70AA
HP Desktop Mini 90W Power Supply Kit	X				L4R65AA
HP Desktop Mini Lock Box V2	X (95W and discrete GPU skus not supported)				3EJ57AA
HP Desktop Mini DVD-Writer ODD Expansion Module	X (Either one)				K9Q83AA
HP Desktop Mini Security/Dual VESA Sleeve v3	X (95W and discrete GPU skus not supported)				13L67AA
HP Desktop Mini Security/Dual VESA Sleeve v3 with Power Supply Holder	X (95W and discrete GPU skus not supported)				13L68AA
HP B250 PC Mounting Bracket	X				8RA46AA
HP B300 PC Mounting Bracket	X				2DW53AA
HP B300 PC Mounting Bracket with Power Supply Holder	X (95W and discrete GPU skus not supported)				7DB37AA
HP B500 PC Mounting Bracket	X				2DW52AA
HP Desktop Mini Vertical Chassis Stand	X				G1K23AA
HP DM Power Supply Holder Kit v2	X (95W and discrete GPU skus not supported)				7DB38AA
HP Quick Release Bracket 2	X			X	6KD15AA
HP Single Monitor Arm	X			X	BT861AA

Data Storage Drives	DM	SFF	TWR	AiO	Part Number
HP PCIe NVME TLC M.2 256GB SSD	X	X	X	X	1CA51AA
HP PCIe NVME TLC M.2 512GB SSD	X	X	X	X	X8U75AA
HP PCIe Gen 4 NVME TLC M.2 512GB SSD	X	X	X		406L8AA
HP PCIe Gen 4 NVME TLC M.2 1TB SSD	X	X	X		406L7AA
HP 500GB 7200PRM SATA 3.5" Hard Drive		X	X		QK554AA

HP 1TB 7200rpm SATA 3.5" Hard Drive		X	X		QK555AA
HP SFF SATA DVD-Writer ODD		X			52D76AA
HP TWR SATA DVD-Writer ODD			X		52D77AA

Input Devices	DM	SFF	TWR	AiO	Part Number
HP Desktop Wired 320K Keyboard	X	X	X	X	9SR37AA
HP 125 Wired Keyboard	X	X	X	X	266C9AA
HP 225 Antimicrobial Wired Mouse and Keyboard Combo	X	X	X	X	286K3AA
HP 225 Wired Mouse and Keyboard Combo	X	X	X	X	286J4AA
HP 125 Wired Mouse	X	X	X	X	265A9AA
HP 128 Laser Wired Mouse	X	X	X	X	265D9AA
HP Wired Desktop 320K Keyboard	X	X	X	X	9SR37AA
HP Wired Desktop 320M Mouse	X	X	X	X	9VA80AA
HP Wired Desktop 320MK Mouse and Keyboard	X	X	X	X	9SR36AA
HP USB Business Slim CCID SmartCard Keyboard	X	X	X	X	Z9H48AA
HP USB Keyboard and Mouse Healthcare Edition	X	X	X	X	1VD81AA
HP USB Premium Keyboard	X	X	X	X	Z9N40AA
HP USB PS/2 Washable Keyboard & Mouse	X	X	X	X	BU207AA
HP Wireless Business Slim Keyboard and Mouse	X	X	X	X	T6L04AA
HP Wireless Premium Keyboard	X	X	X	X	Z9N41AA
HP PS/2 Business Slim Keyboard		X	X		N3R86AA
HP USB Fingerprint Mouse	X	X	X	X	4TS44AA
HP USB Premium Mouse	X	X	X	X	1JR32AA
HP PS/2 Mouse		X	X		QY775AA
HP Wireless Premium Mouse	X	X	X	X	1JR31AA

1. Not available in all regions

System Memory	DM	SFF	TWR	AiO	Part Number
HP 4GB DDR4-3200 UDIMM		X	X		13L78AA
HP 8GB DDR4-3200 UDIMM		X	X		13L76AA
HP 16GB DDR4-3200 UDIMM		X	X		13L74AA
HP 32GB DDR4-3200 UDIMM		X	X		13L72AA
HP 4GB DDR4-3200 SODIMM	X			X	13L79AA
HP 8GB DDR4-3200 SODIMM	X			X	13L77AA
HP 16GB DDR4-3200 SODIMM	X			X	13L75AA
HP 32GB DDR4-3200 SODIMM	X			X	13L73AA

Multimedia Devices	DM	SFF	TWR	AiO	Part Number
HP Business Headset v2	X	X	X	X	T4E61AA
HP S101 Speaker Bar	X	X	X		5UU40AA

Security Devices	DM	SFF	TWR	AiO	Part Number
HP Business PC Security Lock v3 Kit		X	X	X	3XJ17AA
HP Dual Head Keyed Cable Lock		X	X	X	T1A64AA
HP Keyed Cable Lock 10mm	X	X	X	X	T1A62AA
HP Master Keyed Cable Lock 10mm	X	X	X	X	T1A63AA

Stands and Accessories	DM	SFF	TWR	AiO	Part Number
HP EliteOne 800 G6 23.8” Height Adjustable Stand				X	13L61AA
HP EliteOne 800 G6 23.8" Recline Stand				X	13L62AA
HP EliteOne 800 G6 27” Height Adjustable Stand				X	13L63AA
HP EliteOne 800 G6 27” Recline Stand				X	13L64AA

I/O Devices	DM	SFF	TWR	AiO	Part Number
HP DisplayPort Port Flex IO v2	X	X	X		13L54AA
HP Type-C® USB 3.1 Gen2 Port Flex IO v2		X	X		13L59AA
HP USB 3.1 Gen1 x2 Module Flex IO v2	X (Not Available on 95W and discrete GPU SKUs)	X	X		13L58AA
HP VGA Port Flex IO v2	X	X	X		13L53AA
HP Serial Port Flex IO v2	X (Not Available on 95W and discrete GPU SKUs)	X	X		13L56AA
HP Serial Port Flex IO 2nd v2	X (Not Available on 95W and discrete GPU SKUs)				13L57AA
HP Internal Serial Port (in rear wall)		X	X		3TK82AA
HP PCIe x1 Parallel Port Card		X	X		N1M40AA
HP Serial/PS/2 Adapter Kit (in PCIe slot)		X	X		1VD82AA
HP USB to Serial Port Adapter	X	X	X		J7B60AA
HP USB-C to Display Port Adapter	X	X	X		N9K78AA
HP Single Mini Display Port Adapter to Display Port Adapter	X (Only Available with GPU SKUs)				2MY05AA
HP HDMI Standard Cable Kit	X	X	X		T6F94AA
HP DisplayPort Cable Kit	X	X	X		VN567AA
HP DisplayPort To VGA Adapter	X	X	X		AS615AA

HP DisplayPort To DVI-D Adapter	X	X	X		FH973AA

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

Communication Devices	DM	SFF	TWR	AiO	Part Number
Intel® Ethernet I225-T1 GbE NIC		X	X		TBD
Intel Wi-Fi 6 AX200 ax 2x2 + BT5 non-vPro		X	X		

Intel® Optane Memory	DM	SFF	TWR	AiO	Part Number
512GB Intel® Optane™ Memory H10 with SSD	X	X	X	X	6VF55AA

Change Log

Date	Version History	Action	Description of Change
June 15, 2021	From v1 to v2	Removal	HP Workwell removed from software section
August 20, 2021	From v2 to v3	Removal	HP Sure view mentions from display panel specifications
August 26, 2021	From v3 to v4	Correction	NVIDIA® GeForce® RTX 3070 Graphics Card to 7680x4320@60Hz MAX. Res (HDMI)
September 23, 2021	From v4 to v5	Addition	LHR and disclaimer by the end of RTX 3070 model description
November 4, 2021	From v5 to v6	Update	1CA52AA removed and replaced with 52D76AA and 52D77AA added in Data Storage Drives at Amo section.
December 9, 2021	From v6 to v7	Update	Wi-fi 6 disclaimers updated.
December 15, 2021	From v6 to v7	Update	Windows 11 update
December 16, 2021	From v8 to v9	Update	TWR Environmental table updated
	From v9 to v10		