

Overview

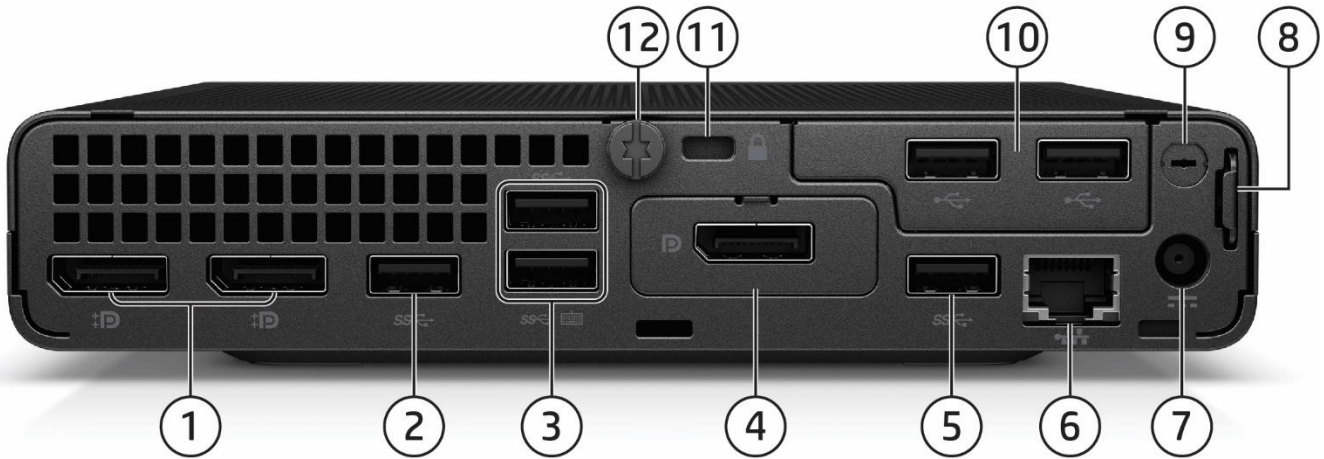
HP EliteDesk 805 G6 Desktop Mini Business PC



1. Type-C™ SuperSpeed USB 10Gbps signaling rate (charge support up to 5V/3A)
2. Type-A SuperSpeed USB 10 Gbps signaling rate
3. Type-A SuperSpeed USB 10 Gbps signaling rate (charge support up to 5V/3A)
4. Universal Audio Jack with CTIA headset support
5. Dual-state power button
6. Hard Drive activity light

Overview

HP EliteDesk 805 G6 Desktop Mini Business PC



- | | |
|---|---|
| <ol style="list-style-type: none"> 1. (2) DisplayPort™ 1.4 2. Type-A SuperSpeed USB 10Gbps signaling rate 3. 2x Type-A SuperSpeed USB 5Gbps signaling rate (Supporting wake from S4 with keyboard/mouse connected and enabled in BIOS) 4. (1) Flex Port 1*, choice of: <ul style="list-style-type: none"> • DisplayPort™ 1.4 (shown here installed) • HDMI 2.0a • VGA • 2.5 GbE Ethernet NIC • (2) Type A SuperSpeed USB 5Gbps signaling rate • Type-C® SuperSpeed USB 10Gbps signaling rate port w/Alt Mode DisplayPort™ • Fiber NIC (1Gbps or 100 MBps) 5. Type-A SuperSpeed USB 10Gbps signaling rate | <ol style="list-style-type: none"> 6. RJ-45 Network Adapter 7. Power connector 8. Retractable Padlock Loop 9. External WLAN antenna opening 10. (1) Flex Port 2, choice of: <ul style="list-style-type: none"> • VR Ready NVIDIA GTX 1660 Ti discrete GPU • (2) Type-A Hi-Speed USB 480Mbps signaling rate port (shown here installed) • Serial 11. Standard cable lock slot (10mm) 12. Cover release thumbscrew |
|---|---|

Not Shown

- Slots (1) internal M.2 WLAN (2230 connector)
 (2) internal M.2 SSD storage (2280 connector)
- Bays (1) 2.5- inch SATA drive Bay

Mounting

- VESA 100 mounting system integrated on bottom of PC chassis
- Support for:
- VESA Sleeve standalone
 - Quick Release Bracket
 - B300/B500 Mounting bracket
 - Integrated Work Center Stand

***NOTE:** Availability depends on model

Overview

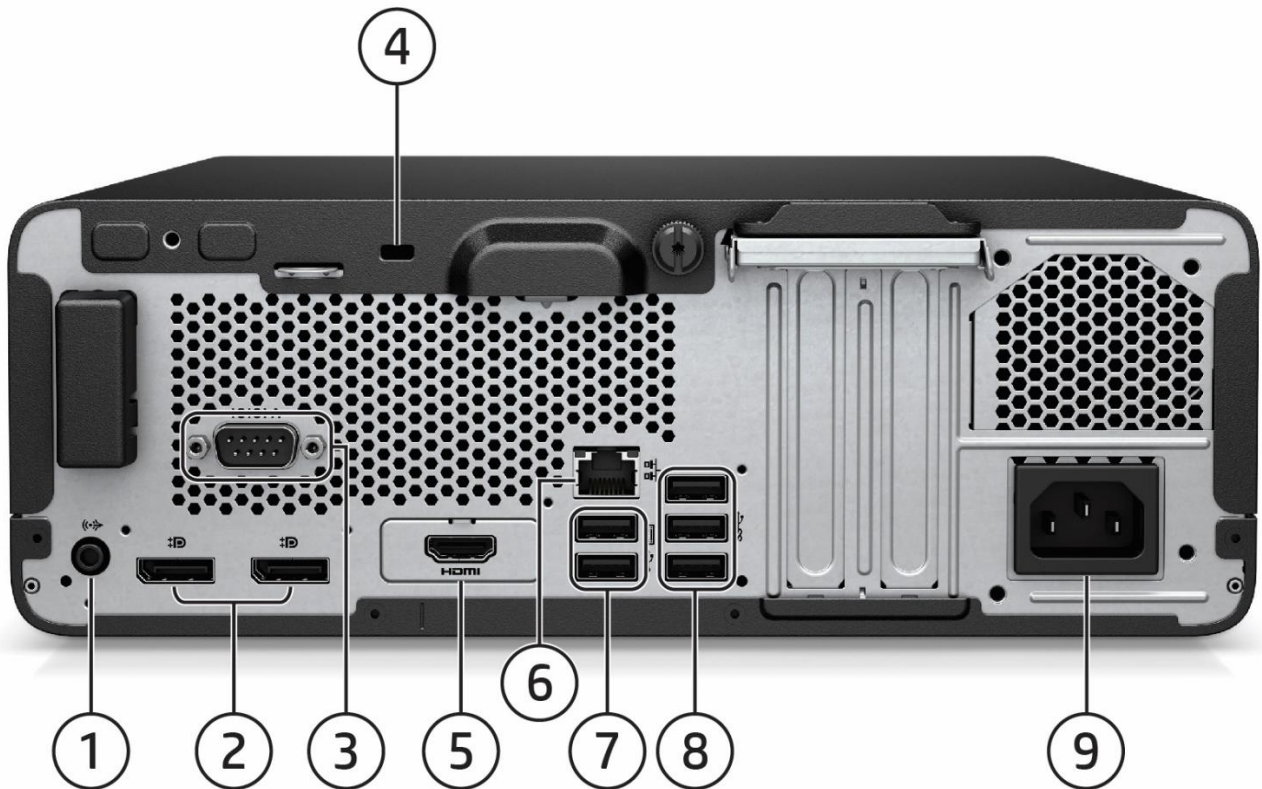
HP EliteDesk 805 G6 Small Form Factor Business PC



1. 9.5mm slim optical drive (optional)
2. SD 4 media card reader (optional)
3. USB-C® SuperSpeed USB 10Gbps signaling rate (charge support up to 5V/3A)
4. (2) Type A SuperSpeed USB 10Gbps signaling rate
5. (2) Type A SuperSpeed USB 5Gbps signaling rate (fast charging)
6. Universal Audio Jack with CTIA headset support
7. Dual-state power button
8. Hard Drive activity light

Overview

HP EliteDesk 805 G6 Small Form Factor Business PC



- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Audio line-out connector 2. (2) DisplayPort™ 1.4 3. Optional serial port (shown here installed) 4. Standard lock slot 5. Optional Flex Port, choice of: <ul style="list-style-type: none"> • DisplayPort™ 1.4 • HDMI 2.0a (shown here installed) • VGA • Serial • (2) Type A SuperSpeed USB 5Gbps signaling rate • Type-C® SuperSpeed USB 10Gbps signaling rate port w/Alt Mode DisplayPort™ | <ol style="list-style-type: none"> 6. RJ-45 Network Adapter 7. 2x Type A Hi-Speed USB 480Mbps signaling rate (one with wake from keyboard) 8. 3x Type A SuperSpeed USB 5Gbps signaling rate 9. Power connector |
|--|--|

Slots

- (1) PCI Express x16 graphics connectors
- (1) PCI Express x4
- (1) internal M.2 WLAN (2230 connector)
- (2) internal M.2 SSD storage (2280 connector)

Bays

- (1) 3.5" internal storage drive bay (convertible to two 2.5", requiring adapter supplied from factory only)
- (1) 9.5mm slim optical drive bay

Standard Features and Configurable Components (availability may vary by country)

AT A GLANCE

- Choice of two form factors: Small Form Factor and Desktop Mini
- HP developed and engineered UEFI V2.7 BIOS supporting security, manageability and software image stability
- AMD® Ryzen™ PRO 4000 series processors with Radeon™ Vega Graphics¹
- Support for up to 7 monitors on DM² and 6 monitors on SFF via two standard DisplayPort™ 1.2, a configurable flex port for video and a discrete graphics card.⁷
- Configurable flex port provides the following choices: HDMI 2.0a, VGA, DisplayPort™ 1.4, USB Type-C™ with DisplayPort™ 1.2 for all platforms; 2nd serial or dual USB Type-A for SFF, USB Type-C™ with DisplayPort™ 1.2 with 100W Power Delivery for DM and discrete graphics with Display Port™ 1.4 for DM with 35W (see Ports section for port availability by platform).
- 2nd flex port available for DMs with the choice of Serial and dual USB Type-A.
- Intel® Wi-Fi® 6 + BT5 (802.11AX 2x2)³
- DDR4 Synchronous Dynamic Random Access Memory (SDRAM) (Transfer rates up to 3200 MT/s)⁶
- Compatibility with HP Mini-In-One 24 Display⁴ (DM)
- Configurable NVIDIA® GeForce®VR ready discrete graphics card with (3) Mini DisplayPort™ and (1) micro-HDMI video port for DM to support up to (7) monitors with minimum 4K resolution.⁷
- Configurable NVIDIA® Quadro® discrete graphics card with (3) Mini DisplayPort™ for SFF to support up to (6) monitors with minimum 4K resolution.^{2,7}
- Compatible with HP Reverb VR Headset (DM)
- Models can be configured with multiple data drives in a RAID array and support RAID 1 configured from factory.
- Industry-standard AMD® DASH manageability with full featured KVM
- Enhanced security with HP Security Suite (Refer to Security Section for details)
- 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.
- CCC, CECP and SEPA Certified
- TCO certified
- PC chassis and all internal components and modules are manufactured with low halogen content⁵
- Dust filter available (SFF and DM 35W)
- 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.62368-1-14) / ICES-003 / CCC / VCCI (Class B) / KCC (Class B)
- Fiber NIC (100Mbps and 1Gbps) cards would not be available in some selected European countries and Korea.

1. Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. AMD's numbering is not a measurement of clock speed.

2. Only available on Desktop Minis with 35W processor.

3. Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi® 6 is backwards compatible with prior 802.11 specs. The specifications for Wi-Fi® 6 (802.11ax) may affect the ability of the PC to communicate with other 802.11ax devices.

4. HP Mini-in-One 24 Display sold separately. PC must be configured with optional USB Type-C™ with DisplayPort™ 1.2 with 100W Power Delivery

5. External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be low halogen.

6. Transfer rates determined by processor and memory configuration

7. Configurable VGA port does not support 4K resolution.

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

Standard Features and Configurable Components (availability may vary by country)

PRODUCT NAME

HP EliteDesk 805 G6 Desktop Mini Business PC
 HP EliteDesk 805 G6 Small Form Factor Business PC

OPERATING SYSTEM

Preinstalled

Windows 11 Pro¹
 Windows 11 Pro Education¹
 Windows 11 Home - HP recommends Windows 11 Pro for business¹
 Windows 11 Home Single Language- HP recommends Windows 11 Pro for business¹
 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}
 Windows 10 Pro (Windows 11 Enterprise available with a Volume Licensing Agreement)^{1,3}
 FreeDOS

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 internet 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

	<u>DM</u>	<u>SFF</u>
AMD® PRO 565	X	X

Standard Features and Configurable Components (availability may vary by country)

PROCESSORS¹

AMD® Ryzen™ 4000 series Desktop Processors with PRO technologies and integrated AMD® Radeon™ Graphics

	<u>DM</u>	<u>SFF</u>
AMD Ryzen™ 7 PRO 4750G Processor (8C/16T, 12 MB cache, 4.4GHz Boost) 65W	X	X
AMD Ryzen™ 7 PRO 4750GE Processor (8C/16T, 12MB cache, 4.3GHz Boost) 35W	X	
AMD Ryzen™ 5 PRO 4650G Processor (6C/12T, 11MB cache, 4.2GHz Boost) 65W	X	X
AMD Ryzen™ 5 PRO 4650GE Processor (6C/12T, 11MB cache, 4.2GHz Boost) 35W	X	
AMD Ryzen™ 3 PRO 4350G Processor (4C/8T, 6MB cache, 4.0GHz Boost) 65W	X	X
AMD Ryzen™ 3 PRO 4350GE Processor (4C/8T, 6MB cache, 4.0GHz Boost) 35W	X	

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. AMD's numbering is not a measurement of clock speed.

Standard Features and Configurable Components (availability may vary by country)

GRAPHICS

System Integrated Graphics

	<u>DM</u>	<u>SFF</u>
AMD® Radeon™ Graphics	X	X

Optional Discrete Graphics Solutions

	<u>DM</u>	<u>SFF</u>
AMD® Radeon™ RX 550X 4GB 1DP 1 HDMI Graphics Card		X
AMD® Radeon™ R7 430 2GB GDDR5 64bit DP+VGA ¹		X
AMD® Radeon™ R7 430 2GB GDDR5 64bit 2DP		X
NVIDIA® Quadro® P400 2GB mdp to DVI GFX		X
NVIDIA® Quadro® P400 2GB mdp to DP GFX		X
NVIDIA® GeForce® GT1660Ti 6GB 3mDP Micro HDMI ²	X	

1. Not available in all regions.

2. Only available on the Desktop Mini with 35W Processor

Adapters and Cables

	<u>DM</u>	<u>SFF</u>
HP DisplayPort™ Cable	X	X
HP DisplayPort™ to DVI-D Adapter	X	X
HP DisplayPort™ to HDMI 4K Adapter	X	X
HP DisplayPort™ to VGA Adapter	X	X
HP USB to Serial Port Adapter	X	X
HP USB-C® to HDMI 4K Adapter	X	X
HP USB-C® to DisplayPort Adapter	X	X
HP DVI Cable	X	X
Micro HDMI to HDMI Adapter	X	
Mini DisplayPort to DisplayPort Adapter	X	

STORAGE

3.5 inch SATA Hard Disk Drives (HDD)

	<u>DM</u>	<u>SFF</u>
HDD 500GB 7200RPM 3.5in		X
HDD 1TB 7200RPM SATA-3 3.5in		X
HDD 2TB 7200RPM SATA-3 3.5in		X

2.5 inch SATA Hard Disk Drives (HDD)

	<u>DM</u>	<u>SFF</u>
HDD 1TB 5400RPM 2.5in	X	X
HDD 2TB 5400RPM 2.5in	X	X
HDD 500GB 7200RPM 2.5in	X	X
HDD 1TB 7200RPM 2.5in	X	X
HDD 500GB 7200RPM 2.5in Self Encrypted Drive OPAL2	X	X
HDD 500GB 7200RPM 2.5in Federal Information Processing Standard	X	X

Standard Features and Configurable Components (availability may vary by country)

M.2 PCIe NVMe Solid State Drives (SSD)

	<u>DM</u>	<u>SFF</u>
256GB M.2 2280 PCIe NVMe SSD	X	X
512GB M.2 2280 PCIe NVMe SSD	X	X
128GB M.2 2280 PCIe NVMe Three Layer Cell SSD	X	X
256GB M.2 2280 PCIe NVMe Three Layer Cell SSD	X	X
512GB M.2 2280 PCIe NVMe Three Layer Cell SSD	X	X
1TB M.2 2280 PCIe NVMe Three Layer Cell SSD	X	X
2TB M.2 2280 PCIe NVMe Three Layer Cell SSD	X	X
256GB M.2 2280 PCIe NVMe Self Encrypted OPAL2 Three Layer Cell SSD	X	X
512GB M.2 2280 PCIe NVMe Self Encrypted OPAL2 Three Layer Cell SSD	X	X

Optical Disc Drives

	<u>DM</u>	<u>SFF</u>
HP 9.5mm Slim DVD-ROM Drive		X
HP 9.5mm Slim DVD Writer Drive		X
HP 9.5mm Slim Blu-Ray Writer Drive		X

Media Card Reader

	<u>DM</u>	<u>SFF</u>
SD 4.0 with 5-in-1 Interface (Supports SD, SDXC, SDHC, UHS-I, UHS-II)		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^{1,2}

Max Memory Configuration

	<u>DM</u>	<u>SFF</u>
DDR4-3200 (Transfer rates up to 3200 MT/s), 64 GB, 2 SODIMM	X	
DDR4-3200 (Transfer rates up to 3200 MT/s), 128 GB, 4 DIMM		X

1. All memory slots are customer accessible/upgradeable.

2. Actual transfer rate will vary and is determined by the system's configured processor. See processor specifications for supported memory data rate.

Memory Configuration

	<u>DM</u>	<u>SFF</u>
4 GB (1 x 4 GB)	X	X
8 GB (2 x 4 GB)	X	X
8 GB (1 x 8 GB)	X	X
16 GB (2 x 8 GB)	X	X
16 GB (1 x 16 GB)	X	X
32 GB (2 x 16 GB)	X	X
32 GB (4 x 8 GB)		X
32 GB (1 x 32 GB)	X	X
64 GB (4 x 16 GB)		X
64 GB (2 x 32 GB)	X	X
128 GB (4 x 32 GB)		X

Standard Features and Configurable Components (availability may vary by country)

NETWORKING/COMMUNICATIONS

Ethernet (RJ-45)

	<u>DM</u>	<u>SFF</u>
Realtek® RTL8111FP (standard) ¹	X	X
Intel® I210-T1 PCIe x1 Gigabit Network Interface Card (optional)		X

1. Supports full-featured AMD DASH and hardware enforced KVM

Wireless¹

	<u>DM</u>	<u>SFF</u>
Realtek 8852AE Wi-Fi 6 and Bluetooth® M.2 Combo Card ²	X	
Realtek RTL8822CE Wi-Fi 5 (2x2) and Bluetooth® 5 Combo	X	X
Realtek RTL8822CE Wi-Fi 5 (2x2) and Bluetooth® 5 Combo with external antenna	X	

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

2. Wi-Fi 6 is backwards compatible with prior 802.11 specs. The specifications for Wi-Fi® 6 (802.11ax) are draft and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ax devices. Only available in countries where 802.11ax is supported.

KEYBOARDS AND POINTING DEVICES

Keyboards

	<u>DM</u>	<u>SFF</u>
HP Wired Desktop 320K Keyboard	X	X
HP USB Premium Keyboard	X	X
HP USB and PS/2 Washable Keyboard	X	X
HP USB Smart Card (CCID) Keyboard	X	X
HP USB Keyboard	X	X
HP PS/2 Business Slim Keyboard		X
HP Wireless Business Slim Keyboard and Mouse	X	X
HP USB Business Slim Antimicrobial Keyboard ¹	X	X
HP Wireless Premium Keyboard and Mouse	X	X
HP USB Keyboard and Mouse Healthcare Edition	X	X
HP Wireless Premium Keyboard	X	X

1. China only

Mouse

	<u>DM</u>	<u>SFF</u>
HP Wired Desktop 320M Mouse	X	X
HP PS/2 Mouse		X
HP USB Optical Wired Mouse	X	X
HP USB Premium Mouse	X	X
HP 1000dpi Laser Mouse USB	X	X
HP USB and PS/2 Washable Mouse	X	X
Antimicrobial USB Mouse ¹	X	X
HP Hardened Optical USB Mouse ¹	X	X
HP USB Fingerprint Reader Mouse	X	X



Standard Features and Configurable Components (availability may vary by country)

1. China only

SECURITY

	DM	SFF
TPM 2.0 (FW: 7.85) endpoint security controller (Infineon SLB9670) shipped with Windows 10. Common Criteria EAL4+ Certified. FIPS 140-2 Level 2 Certified.	X	X
Intrusion Sensor (Optional)		X
Intrusion Sensor (integrated in the system board, can be enabled/disabled through BIOS)	X	
Support for chassis cable lock devices	X (10 mm barrel or smaller)	X
Support for chassis padlocks devices	X	X
SATA port disablement (via BIOS)	X	X
Serial, USB enable/disable (via BIOS)	X	X
Removable media write/boot control	X	X
Power-on password (via BIOS)	X	X
Setup password (via BIOS)	X	X

PORTS

I/O Ports – Internal Ports

	DM	SFF
Internal SATA storage connector(s)	N/A	(3)
Internal SATA storage connector (Data and Power)	(1)	N/A

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). (Not applicable to all regions.)

I/O Ports – Standard

	DM	SFF
Hi-Speed USB 480Mbps signaling rate port		2 rear
Type-A SuperSpeed USB 5 Gbps signaling rate port	(2) (rear)	(2) (front);3 (rear)
Type-A SuperSpeed USB 10 Gbps signaling rate port	(2) (front);2 (rear)	(2) (front)
Type-C® SuperSpeed USB 10 Gbps signaling rate port (15W)	(1)(front)	(1) (front)
Video	(2) DisplayPort™ 1.4 (rear)	(2) DisplayPort™ 1.4 (rear)
Audio	(1) Universal Audio Jack with CTIA headset support (front)	(1) Universal Audio Jack with CTIA headset support (front); (1) Audio-out (rear)
Network Interface	RJ45	RJ45

Standard Features and Configurable Components (availability may vary by country)

I/O Ports – Optional

	DM	SFF
Serial (RS-232)	N/A	1 (rear)
Serial (RS-232) and PS/2 combination	N/A	1 (rear) ¹

1. Occupies PCIe slot

(1) Flexible Port 1 – Optional (rear), choice of one of the following...

	DM	SFF
Type-A SuperSpeed USB 5 Gbps signaling rate port	2	2
Type-C® SuperSpeed USB 10Gbps signaling rate port	(1) w/DisplayPort™ 1.2 Alt Mode and power intake via USB Type-C® Power Delivery up to 100W	(1) w/ DisplayPort™ 1.2 Alt Mode
Video	(1) DisplayPort™ 1.4 <u>or</u> HDMI 2.0 <u>or</u> VGA	(1) DisplayPort™ 1.4 <u>or</u> HDMI 2.0 <u>or</u> VGA
Serial (RS-232)	N/A	(1)
Fiber NIC	(1) 100Mbps NIC (1) 1 Gbps NIC	N/A
RJ-45 Ethernet NIC	(1) 2.5Gbps	N/A

(1) Flexible Port 2 – Optional (rear), choice of one of the following:

	DM	SFF
Type-A Hi-Speed USB 480Mbps signaling rate port	(2)	N/A
Serial (RS-232)	(1)	N/A
Discrete Graphics ¹	(1)	N/A

1. Only available on the Desktop Mini with 35W Processor

Slots	DM	SFF
M.2 PCIe	(1) M.2 PCIe x1 2230 (for WLAN) (2) M.2 PCIe x4 2280 (for storage)	(1) M.2 PCIe x1 2230 (for WLAN) (2) M.2 PCIe x4 2280 (for storage)
PCI Express v3.0 x4	N/A	1
PCI Express v3.0 x16	N/A	1

Bays	DM	SFF
9.5mm Slim ODD	N/A	1
Secure Digital (SD) Reader	N/A	1
2.5" internal storage drive	1 (optional)	2 ¹
3.5" internal storage drive	N/A	1

1. SFF can be configured with either (1) 3.5" or (2) 2.5" internal storage drive (2.5" requiring adapter supplied from factory only)
SATA 2.5" internal storage drive cannot be selected if 2nd M.2 SSD or discrete graphic card, or 95W processor is selected

Standard Features and Configurable Components (availability may vary by country)

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

Standard Features and Configurable Components (availability may vary by country)

SOFTWARE COMPONENTS AND APPLICATIONS WITH WINDOWS

BIOS

- HP BIOSphere Gen6¹
- HP DriveLock & Automatic DriveLock
- BIOS Update via Network
- Power On Authentication
- HP Secure Erase²
- Absolute Persistence Module³
- Pre-boot Authentication
- HP Wake on WLAN

Software

- HP Smart Support⁴

myHP

- HP Support Assistant⁵
- HP Noise Cancellation Software
- HP Privacy Settings
- HP Setup Integrated OOBE
- HP PC Hardware Diagnostics Windows

Manageability Features

- HP Driver Packs (download)⁶
- HP System Software Manager (SSM) (download)
- HP BIOS Config Utility (BCU) (download)
- HP Client Catalog (download)
- HP Manageability Integration Kit Gen4 (download)⁷
- Ivanti Management Suite (download)⁸
- HP Client Management Script Library (download)
- HP Image Assistant Gen5 (download)

Client Security Software

- HP Client Security Manager Gen6⁵⁹
- HP Power On Authentication
- Windows Defender¹⁰

Security Management

- Trusted Platform Module TPM 2.0 Embedded Security Chip shipped with Windows 10. Common Criteria EAL4+ Certified. SATA 0,1 port disablement (via BIOS)
- Serial, USB enable/disable (via BIOS)
- Power-on password (via BIOS)
- Setup password (via BIOS)
- Support for chassis padlocks and cable lock devices
- HP Sure Start Gen6¹¹
- HP Sure Click¹²
- HP Sure Run Gen3¹³
- HP Sure Recover Gen3¹⁴
- HP Sure Sense¹⁵

1. HP BIOSphere Gen6 is available on select HP Pro and Elite PCs. See product specifications for details. Features may vary depending on the platform and configurations.

2. 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™

Standard Features and Configurable Components (availability may vary by country)

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. 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.
5. HP Support Assistant requires Windows and Internet access.
6. HP Driver Packs not preinstalled, however available for download at <http://www.hp.com/go/clientmanagement>.
7. HP Manageability Integration Kit can be downloaded from <http://www8.hp.com/us/en/ads/clientmanagement/overview.html>.
8. Ivanti Management Suite subscription required.
- 9 HP Client Security Manager Gen6 requires Windows and is available on the select HP Pro and Elite PCs.
10. Windows Defender Opt in and internet connection required for updates.
11. HP Sure Start Gen6 is available on select HP PCs with Intel processors
12. HP Sure Click requires Windows 10 Pro or Enterprise. See https://bit.ly/2PrLT6A_SureClick for complete details.
13. HP Sure Run Gen3 is available on select Windows 10 based HP Pro, Elite and Workstation PCs with select Intel® or AMD processors.
14. HP Sure Recover Gen3 is available on select HP PCs and requires an open network connection. You must back up important files, data, photos, videos, etc. before using HP Sure Recover to avoid loss of data.
15. HP Sure Sense requires Windows 10 Pro or Enterprise.

Standard Features and Configurable Components (availability may vary by country)

ENVIRONMENTAL & INDUSTRY

ENERGY STAR® certified models available

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.

Low halogen (chassis, all internal components and modules)²
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) ¹ Non-operating: -22° to 140° F (-30° to 60° 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)

1. 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.

HP EliteDesk 805 Desktop Mini G6 Business PC

Eco-Label Certifications & declarations	<p>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:</p> <ul style="list-style-type: none"> • 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. • TCO Certified • China Energy Conservation Program (CECP) • China State Environmental Protection Administration (SEPA) • Taiwan Green Mark • Korea Eco-label • Japan PC Green label • Commission Regulation (EC) No 617/2013 (ErP Lot 3)
--	---

Standard Features and Configurable Components (availability may vary by country)

Sustainable Impact Specifications	<ul style="list-style-type: none"> • Low halogen¹ • Ocean-Bound Plastic in speaker enclosure² • Outside Box and corrugated cushions are 100% sustainably sourced and recyclable³ • 75% post-consumer recycled plastic⁴ • Molded Paper Pulp Cushion inside box is 100% sustainably sourced and recyclable⁵ <p>1. External power supplies, WWAN modules, power cords, cables and peripherals excluded. Service parts obtained after purchase may not be Low Halogen.</p> <p>2. Percentage of ocean-bound plastic contained in each component varies by product</p> <p>3. 100% outer box packaging and corrugated cushions made from sustainably sourced certified and recycled fibers.</p> <p>4. Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard.</p> <p>5. Molded pulp cushions are made from 100% recycled wood fiber and organic materials.</p>		
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)	9.9 W	10 W	9.6 W
Normal Operation (Long idle)	9.1 W	9.2 W	9 W
Sleep	0.8 W	0.8 W	0.8 W
Off	0.7 W	0.7 W	0.7 W
	<p>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.</p>		
Heat Dissipation*	115VAC, 60Hz	230VAC, 50Hz	100VAC, 50Hz
Normal Operation (Short idle)	33.63 BTU/hr	33.93 BTU/hr	32.88 BTU/hr
Normal Operation (Long idle)	31.17 BTU/hr	31.5 BTU/hr	30.54 BTU/hr
Sleep	2.7 BTU/hr	2.7 BTU/hr	2.6 BTU/hr
Off	2.31 BTU/hr	2.4 BTU/hr	2.23 BTU/hr
	<p>NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.</p>		
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		19
Fixed Disk – Random writes	2.9		20
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	his battery(s) in this product comply with EU Directive 2006/66/EC		



Standard Features and Configurable Components (availability may vary by country)

	<p>Batteries used in the product do not contain: Mercury greater than 1ppm by weight Cadmium greater than 20ppm by weight</p> <p>Battery size: Not Applicable Battery type: Not Applicable</p>		
Additional Information	<ul style="list-style-type: none"> • 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). • This product is in compliance with the IEEE 1680.1 (EPEAT) standard at the <Gold> level, see www.epeat.net • Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043. • This product contains 35.2% post-consumer recycled plastic (by wt.) • This product is 92.8% recycle-able when properly disposed of at end of life. 		
Packaging Materials	External:	PAPER/Corrugated	450 g
	Internal:	PAPER/Molded Pulp	74 g
		PLASTIC/Polyethylene low density - LDPE	5 g
Material Usage	<p>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):</p> <ul style="list-style-type: none"> • 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) 		

Standard Features and Configurable Components (availability may vary by country)

Packaging Usage	<p>HP follows these guidelines to decrease the environmental impact of product packaging:</p> <ul style="list-style-type: none"> • 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	<p>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.</p> <p>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.</p>
HP Inc. Corporate Environmental Information	<p>For more information about HP's commitment to the environment:</p> <p>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</p> <p>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</p>

HP EliteDesk 805 Small Form Factor G6 Business PC

Eco-Label Certifications & declarations	<p>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:</p> <ul style="list-style-type: none"> • 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. • TCO Certified • China Energy Conservation Program (CECP) • China State Environmental Protection Administration (SEPA) • Taiwan Green Mark • Korea Eco-label • Japan PC Green label • Commission Regulation (EC) No 617/2013 (ErP Lot 3)
--	---

Standard Features and Configurable Components (availability may vary by country)

Sustainable Impact Specifications	<ul style="list-style-type: none"> • 80 Plus® Platinum power supplies available • External Power Supply 90% Efficiency • Low halogen¹ • Ocean-Bound Plastic in speaker enclosure² • Outside Box and corrugated cushions are 100% sustainably sourced and recyclable³ • Recycled Plastic cushions⁴ • 40% post-consumer recycled plastic⁵ • Molded Paper Pulp Cushion inside box is 100% sustainably sourced and recyclable⁶ <p>1. External power supplies, WWAN modules, power cords, cables and peripherals excluded. Service parts obtained after purchase may not be Low Halogen.</p> <p>2. Percentage of ocean-bound plastic contained in each component varies by product</p> <p>3. 100% outer box packaging and corrugated cushions made from sustainably sourced certified and recycled fibers.</p> <p>4. Plastic cushions are made from >90% recycled plastic.</p> <p>5. Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard.</p> <p>6. Molded pulp cushions are made from 100% recycled wood fiber and organic materials.</p>		
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)	14.5 W	14.6 W	14.5 W
Normal Operation (Long idle)	13.5 W	13.6 W	13.1 W
Sleep	0.8 W	0.8 W	0.8 W
Off	0.7 W	0.7 W	0.7 W
	<p>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.</p>		
Heat Dissipation*	115VAC, 60Hz	230VAC, 50Hz	100VAC, 50Hz
Normal Operation (Short idle)	49.6 BTU/hr	49.9 BTU/hr	49.6 BTU/hr
Normal Operation (Long idle)	46.2 BTU/hr	46.5 BTU/hr	44.8 BTU/hr
Sleep	2.7 BTU/hr	2.7 BTU/hr	2.7 BTU/hr
Off	2.4 BTU/hr	2.4 BTU/hr	2.4 BTU/hr
	<p>NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.</p>		
Declared Noise Emissions (in accordance with ISO 7779 and ISO 9296)	Sound Power (L _{WAd} , bels)		Sound Pressure (L _{pAm} , decibels)
Typically Configured – Idle	3.3		24
Fixed Disk – Random writes	3.3		25
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:		



Standard Features and Configurable Components (availability may vary by country)

	Spare parts are available throughout the warranty period and or for up to “5” years after the end of production.		
Batteries	<p>This battery(s) in this product comply with EU Directive 2006/66/EC</p> <p>Batteries used in the product do not contain: Mercury greater the 1ppm by weight Cadmium greater than 20ppm by weight</p> <p>Battery size: CR2032 (coin cell) Battery type: Lithium</p>		
Additional Information	<p>This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2011/65/EC.</p> <ul style="list-style-type: none"> • This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC. • This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986). • This product is in compliance with the IEEE 1680.1 (EPEAT) standard at the <Gold> level, see www.epeat.net • Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043. • This product contains 42.2% post-consumer recycled plastic (by wt.) • This product is 94.0% recycle-able when properly disposed of at end of life. 		
Packaging Materials	External:	PAPER/Paper	1019 g
		PAPER/Molded Pulp	414 g
	Internal:	PLASTIC/Polyethylene low density - LDPE	29 g
Material Usage	<p>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):</p> <ul style="list-style-type: none"> • 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) 		

Standard Features and Configurable Components (availability may vary by country)

<p>Packaging Usage</p>	<p>HP follows these guidelines to decrease the environmental impact of product packaging:</p> <ul style="list-style-type: none"> • 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.
<p>End-of-life Management and Recycling</p>	<p>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.</p> <p>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.</p> <p>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</p>

Standard Features and Configurable Components (availability may vary by country)

SERVICE AND SUPPORT

On-site Warranty¹⁵: Three-year (3-3-3) limited warranty delivers three years of on-site, next business day¹⁶ service for parts and labor and includes free support 24 x 7¹⁷. 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>.¹⁸

15. Terms and conditions may vary by country. Certain restrictions and exclusions apply. Other warranty variations may be offered in your region.

16. 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.

17. 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.

18. 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.

Technical Specifications – Processors

PROCESSORS

AMD® Ryzen™ 4000 Series Processors

All HP EliteDesk 805 G6 Business PC are designed to ensure stability.

Architecture: “Zen 2”

Process Node: 7nm

AMD® PRO Technologies

AMD® Memory Guard – Helps defend against cold boot attacks with real time encryption of memory

AMD® PRO manageability – DASH including KVM Redirection Profile with hardware enforcement

Technical Specifications – Processors

GRAPHICS

AMD Radeon™ Vega 7 Graphics

Multi Display Support	Maximum of 3 displays supported by the integrated graphics
DisplayPort	Two DisplayPort outputs are standard. One DisplayPort output is optional. AMD® PRO APUs and AMD® Ryzen™ APUs support DP1.4 features including DP++, Audio, MST, HBR2, HDCP2.3 and a maximum resolution of 5128x3880@30Hz or 3840x2160@60Hz.
VGA Port (Optional)	Maximum Resolution of 2048x1536 at 60Hz
HDMI (Optional)	AMD® PRO APUs support HDMI 2.0 features and AMD® Ryzen™ APUs support HDMI 2.0a features. All support HDCP2.3, audio and a maximum resolution of 4096x2160@60Hz
USB-C (Optional)	Supports DisplayPort Alt Mode
Memory	512MB when less than 8GB of system memory is installed 1GB when 8GB or more of system memory is installed
Maximum Color Depth	up to 10 bits
Graphics/Video API Support	AMD® PRO APUs: DirectX 12 OpenCL 1.2 OpenGL 4.1 Dedicated decoding of the H.264 format at up to 4K and 60Hz. Encoding H.264 video supported at 1080p120, 1440p60, and 2160p60 AMD® Ryzen™ APUs: DirectX 12 Vulkan 1.0 OpenCL 2.0 OpenGL 4.5 Hardware-based decode of HEVC/H.265 main10 profile videos at resolutions up to 3840x2160 at 60Hz with 10-bit color for HDR content. Dedicated decoding of the H.264 format at up to 4K and 60Hz. Decoding the VP9 format at resolutions up to 3840x2160 using a hybrid approach where the video and shader engines collaborate to offload work from the CPU. Encode HEVC/H.265 at 1080p240, 1440p120, and 2160p60. Encoding H.264 video is also supported at 1080p120, 1440p60, and 2160p60

Technical Specifications – Processors

AMD® Radeon™ RX 550X 4GB PCIe x16

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™ R7 430 2GB GDDR5 DP+VGA 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(VGA)	2048x1536
Max. Resolution(DP)	4096x2160@60Hz
Multi Display Support	2 displays
HDCP Compliance	Yes
Rear I/O connectors(bracket)	DP+VGA
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 2GB 2DP 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
Engine Clock	780 MHz

Technical Specifications – Processors

GFX Nvd GeF GTX1660Ti 6GB Graphics Card

Engine Clock	1140 MHz
Memory Clock	6001 MHz
Memory Size(width)	6GB (192-bit)
Memory Type	2CH x 256M x 16 GDDR6
Max. Resolution(DP)	5120 x 3200 @60Hz
Multi Display Support	4 displays
HDCP Compliance	Yes
Rear I/O connectors(bracket)	mDPx3 + Micro HDMIx1
Cooling(active/passive)	Active
Total power consumption(W)	<60W
PCB form-factor with bracket	Customized

Nvidia® GeForce® GTX1660 Ti

Architecture	Discrete GPU Nvidia® GPU drives the integrated panel and all of the graphics output ports
DisplayPort	Maximum pixel clock :1.3 GHz pixels per second Maximum bandwidth :25.92 Gbps per connector (FEC Disable)
HDMI	Supports HDMI 2.0 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

NVIDIA® Quadro P400 2GB 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)	3 displays
Multi Display Support	Yes
HDCP Compliance	mDPx3
Rear I/O connectors(bracket)	Active fan-sink (Active cooling with dynamic speed)
Cooling(active/passive)	<30W
Total power consumption(W)	LP PCB with LP bracket
PCB form-factor with bracket	1252 MHz

Technical Specifications – Storage

STORAGE

3.5 inch SATA HARD DISC DRIVES (HDD)

500GB 7200RPM 3.5in SATA HDD

Capacity	500GB
Rotational Speed	7,200 rpm
Interface	SATA 6.0 Gb/s
Buffer Size	32MB
Logical Blocks	976,773,168
Seek Time	11 ms (Average)
Height	1 in/2.54cm
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	1TB
Rotational Speed	7,200 rpm
Interface	SATA 6 Gb/s
Buffer Size	64MB
Logical Blocks	1,953,525,168
Seek Time	11 ms (Average)
Height	1 in/2.54cm
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.

2TB 7200RPM 3.5in SATA HDD

Capacity	2TB
Rotational Speed	7,200 rpm
Interface	SATA 6 Gb/s
Buffer Size	64MB
Logical Blocks	1,953,525,168
Seek Time	11 ms (Average)
Height	1.028in/26.11mm
Width (nominal)	4.0in/101.6mm
Operating Temperature	41° to 131° F (5° to 55° C)

Technical Specifications – Storage

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.

2.5 inch SATA HARD DISC DRIVES (HDD)

1TB 5400RPM 2.5in SATA HDD

Capacity	1TB
Rotational Speed	5,400 rpm
Interface	SATA 6 Gb/s
Buffer Size	Up to 128MB
Logical Blocks	1,953,525,168
Seek Time	12ms (Average)
Height	0.283in/7.2mm (Max.)
Width (nominal)	2.75in/70mm (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	2TB
Rotational Speed	5,400 rpm
Interface	SATA 6 Gb/s
Buffer Size	128MB
Logical Blocks	3,907,050,336
Seek Time	12 ms (Average)
Height	0.374in/9.5mm (nominal)
Width (nominal)	2.75in/70mm (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 SATA HDD

Capacity	500GB
Rotational Speed	7,200 rpm
Interface	SATA 6 Gb/s
Buffer Size	16MB
Logical Blocks	976,773,168
Seek Time	12 ms (Average)
Height	0.267in/7.2mm (Maximum)
Width	2.75in/70mm (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.



Technical Specifications – Storage

1TB 7200RPM 2.5in SATA HDD

Capacity	1TB
Rotational Speed	7,200 rpm
Interface	SATA 6 Gb/s
Buffer Size	128MB
Logical Blocks	1,953,525,168
Seek Time	12 ms (Average)
Height	0.283in/7.2 mm (Max)
Width	2.75in/70mm (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	500GB
Architecture	Self-Encrypting (SED) Solid State Drive with SATA interface
Interface	SATA 6 Gb/s
Buffer Size	128MB
Logical Blocks	976,773,168
Seek Time	12 ms (Average)
Height	0.283 in/7.2 mm (Max)
Width	2.75in/70mm (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	500GB
Architecture	Self-Encrypting (SED) Solid State Drive with SATA interface
Interface	SATA 6 Gb/s
Buffer size	128MB
Logical blocks	976,773,168
Seek time	12 ms (Average)
Height	0.283in/7.2mm (max.)
Width	2.75in/70mm (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.

Technical Specifications – Storage

M.2 PCIe NVMe SOLID STATE DRIVES (SSD)

256GB M.2 2280 PCIe NVMe SSD

Drive Weight	< 10g
Capacity	256GB
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	512GB
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.

128GB M.2 2280 PCIe NVMe Three Layer Cell SSD

Drive Weight	< 10g
Capacity	128GB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIe Gen3
Maximum Sequential Read	Up to 2800MB/s
Maximum Sequential Write	Up to 600MB/s
Logical Blocks	250,069,680
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]

Technical Specifications – Storage

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	512GB
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	1TB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIe Gen3
Maximum Sequential Read	Up to 3480MB/s
Maximum Sequential Write	Up to 3037MB/s



Technical Specifications – Storage

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	2TB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIe Gen3
Maximum Sequential Read	Up to 3000MB/s
Maximum Sequential Write	Up to 2900MB/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	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; 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	512GB
Height	2.38mm
Length	80mm
Width	22mm
Interface	PCIe Gen3



Technical Specifications – Storage

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.

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 (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)
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
Read Speeds	DVD-RW, DVD+RW - Up to 8X

Technical Specifications – Storage

	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)

HP 9.5mm Slim Blu-Ray Writer Drive

Height	9.5 mm height
Orientation	Either horizontal or vertical
Interface type	SATA/ATAPI
Disc recording capacity	Up to 128 GB QL, 100 GB TL, 50 GB DL or 25 GB standard SL
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)	0.29 lb (132 g)
Write Speeds	BD-R SL/DL Up to 6X BD-R TL/QL Up to 4X BD-RE Up to 2X DVD-R Up to 8X DVD-R DL - Up to 6X DVD-RW Up to 6X DVD+R Up to 8X DVD+R DL - Up to 6X DVD+RW Up to 8X DVD-RAM Up to 5X CD-R Up to 24X CD-RW Up to 10X

Read Speeds	BD-ROM Up to 6X BD-R Up to 6X BD-RE SL/DL Up to 6X BD-RE TL Up to 4X DVD-ROM Up to 8X DVD-R SL/DL Up to 8X DVD-R Up to 8X DVD-RW Up to 8X DVD+R SL/DL Up to 8X DVD+R Up to 8X DVD+RW Up to 8X BDMV (AACs Compliant Disc) Up to 6x/2x (Read/Play) DVD-RAM Up to 5x DVD-Video (CSS Compliant Disc) Up to 8x/4x (Read/Play) CD-R/RW/ROM Up to 24x CD-DA (DAE) Up to 24X/10X (Read/Play)
--------------------	---

Technical Specifications – Storage

Access time (typical reads, including settling)	Random BD-ROM: 205 ms (typical), DVD-ROM: 185 ms (typical), CD-ROM: 165 ms (typical) Full Stroke BD-ROM: 350 ms (typical), DVD-ROM: 345 ms (typical), CD-ROM: 340 ms (typical)
Power	Source Slimline SATA DC power receptacle DC Power Requirement 5 VDC \pm 5%-100 mV ripple p-p DC Current 5 VDC -1200 mA typical, 2000 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)

Technical Specifications – Networking and Communications

NETWORKING AND COMMUNICATIONS

Realtek RTK8111FP 10/100/1000 Integrated NIC	
Connector	RJ-45
System Interface	PCIe + 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 Disconnection: 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	Support DASH 1.2 compliant

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
-------------------------------	--

Technical Specifications – Networking and Communications

Interoperability	Wi-Fi CERTIFIED™ modules
Frequency Band	802.11b/g/n/ax <ul style="list-style-type: none"> • 2.402 – 2.482 GHz 802.11a/n/ac/ax <ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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
Security³	<ul style="list-style-type: none"> • 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 • 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 Power²	<ul style="list-style-type: none"> • 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 HT40(2.4GHz): +10dBm minimum • 802.11ax VHT160(5GHz): +10dBm minimum
Power Consumption	<ul style="list-style-type: none"> • 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 Sensitivity³	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

Technical Specifications – Networking and Communications

	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 Wireless Technology		
Bluetooth® Specification	4.0/4.1/4.2/5.0 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	ETS 300 328, ETS 300 826	
Certifications	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	



Technical Specifications – Networking and Communications

	<p>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</p>
--	---

Realtek RTL8822CE 802.11ac 2x2 Wi-Fi + BT5	
Wireless LAN Standards	<p>IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac IEEE 802.11d IEEE 802.11e IEEE 802.11h IEEE 802.11i IEEE 802.11k IEEE 802.11r IEEE 802.11v</p>
Interoperability	Wi-Fi® CERTIFIED™
Frequency Band	<p>802.11b/g/n • 2.402 – 2.482 GHz 802.11a/n/ac • 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</p>
Data Rates	<p>• 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, and 80MHz)</p>
Modulation	<p>Direct Sequence Spread Spectrum BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM</p>
Security³	<ul style="list-style-type: none"> • IEEE and WiFi 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



Technical Specifications – Networking and Communications

	• WAPI	
Network Architecture Models	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)	
Roaming	IEEE 802.11 compliant roaming between access points	
Output Power²	<ul style="list-style-type: none"> • 802.11b : +14dBm minimum • 802.11g : +12dBm minimum • 802.11a : +12dBm minimum • 802.11n HT20(2.4GHz) : +12dBm minimum • 802.11n HT40(2.4GHz) : +12dBm minimum • 802.11n HT20(5GHz) : +10dBm minimum • 802.11n HT40(5GHz) : +10dBm minimum • 802.11ac VHT80(5GHz) : +10dBm minimum 	
Power Consumption	<ul style="list-style-type: none"> • 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 Sensitivity³	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	
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	14° to 158° F (-10° to 70° C)
	Non-operating	-40° to 176° F (-40° to 80° C)
Humidity	Operating	10% to 90% (non-condensing)
	Non-operating	5% to 95% (non-condensing)
Altitude	Operating	0 to 10,000 ft (3,048 m)
	Non-operating	0 to 50,000 ft (15,240 m)
LED Activity	LED Amber – Radio OFF; LED Off – Radio ON	
HP Integrated Module with Bluetooth 4.0/4.1/4.2/5.0 Wireless Technology		
Bluetooth[®] Specification	4.0/4.1/4.2/5.0 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	

Technical Specifications – Networking and Communications

	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	ETS 300 328, ETS 300 826
Certifications	FCC (47 CFR) Part 15C, Section 15.247 & 15.249
Power Management	ETS 300 328, ETS 300 826
Certifications	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)

Technical Specifications – Input/Output Devices

I/O DEVICES

HP USB Premium Keyboard

	Keys	104, 105 layout (depending upon country)
Physical Characteristics	Dimensions (L x W x H)	17.04 x 5.55 x 0.52 in (433 x 141 x 13.2 mm)
	Weight	1.54 lb (698g)
	Operating voltage	5 VDC, +/-5%
Electrical	Power consumption	35mA (All LED on)
	System interface	USB Type A plug connector
	ESD	Contact Discharge: 8 KV Air Discharge: 15 KV
Mechanical	EMI - RFI	Conforms to FCC rules for a Class B computing device
	Keycaps	Low-profile design
	Switch actuation	60±10g nominal peak force with tactile feedback
	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)
	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)
Environmental	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
Approvals	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, C-Tick, KC	
Ergonomic Compliance	TUVGS	
Kit Contents	Keyboard, QSP	
Warranty Card	Product Notice	

Technical Specifications – Input/Output Devices

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 mm)	
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)
Electrical	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
Mechanical	Operating voltage	5 VDC, +/-5%
	Power consumption	12mA
Tracking speed	Connector	USB 2.0
	Type	3D mouse (3 keys and wheel)
	Resolution	800, 1200, 1600 DPI
	Sensor	Pixart PAN3606DL
Regulatory approvals	Tracking acceleration	8G(max), 1G=9.8m/s ²
	Cable length	6 ft (1.8 m)
	Color	Jack Black
	Compliant	UL, FCC, CE Mark, TUV GS, VCCI, BSMI, C-Tick, KC

HP Wired Desktop 320M Mouse

Dimensions (H x L x W)	35.5mm x 103.8mm x 63.4mm	
Weight	75.8 +/- 10 g	
Color	Black	
Connector	USB	
Cable Length	1800mm	
Sustainability	Low halogen PCBA	
Mechanical	Resolution	1000 DPI sensitivity
	Buttons	Two primary buttons and clickable scroll wheel

HP Wired Desktop 320K Keyboard

Dimensions (H x L x W)	16.7mm x 426.2mm x 110.9mm	
Weight	413 +/- 30 g	
Color	Black	
Connector	USB	
Cable Length	1800mm	

Technical Specifications – Input/Output Devices

Keys	104, 105, 107, 109	
Operating Voltage	5V	
Power Consumption	50mA – 100mA	
Switch Life	10M	
Switch Type	Plunger	
Operating Temperature	10°C to 50°C	
Non- Operating Temperature	30°C to 65°C	
Operating Humidity	10% to 90%	
Non- Operating Humidity	0% to 90%	
Sustainability	Greater than 50% post-consumer recycled plastic content and low halogen PCBA	
HP USB Mouse		
Dimensions (H x L x W)	37mm*115mm*62.9mm	
Weight	90 +10g/- 5 g	
Color	Black	
Connector	USB	
Mechanical	Resolution Buttons	800 DPI sensitivity Two primary buttons and clickable scroll wheel

Technical Specifications – Audio/Multimedia

AUDIO/MULTIMEDIA

HP EliteDesk 805 G6 Small Form Factor Business PC

Type	Integrated
HD Stereo Codec	Conexant Zuma CX20632 / Realtek ALC 3867
Audio I/O Ports	Front: 1 - Headset connector supports a CTIA style headset and is re-taskable as a Line-in, Line-out, Microphone-in or Headphone-out port 1 - Headphone port Rear: Line-out Line-in which is retaskable as a Microphone Input All ports are 3.5mm and support stereo
Internal Speaker Amplifier	2W class D mono amplifier for the internal speaker only. External speakers must be powered externally
Multi-streaming Capable	Playback multi-streaming allows for 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 Synthesis	Yes - Uses OS soft wavetable
Analog Audio	Yes
# of Channels on Line-Out	Stereo (Left & Right channels)
Internal Speaker	Yes

HP EliteDesk 805 G6 Desktop Mini Business PC

Type	Integrated
HD Stereo Codec	Conexant Zuma ALC3205 / Realtek ALC 3867
Audio I/O Ports	Front: 1 - Headset connector supports a CTIA style headset and is re-taskable as a Line-in, Line-out, Microphone-in or Headphone-out port 1 - Headphone port All ports are 3.5mm and support stereo
Internal Speaker Amplifier	2W class D mono amplifier for the internal speaker only. External speakers must be powered externally
Multi-streaming Capable	Playback multi-streaming allows for 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 Synthesis	Yes - Uses OS soft wavetable
Analog Audio	Yes
# of Channels on Line-Out	Stereo (Left & Right channels)
Internal Speaker	Yes

Technical Specifications – Power

POWER

HP EliteDesk 805 G6 Small Form Factor Business PC

UNIT ENVIRONMENT AND OPERATING CONDITIONS

Temperature Range	Operating: 5°C ~50°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 805 G6 Desktop Mini Business 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)

	DM	SFF
80 PLUS Platinum		180W active PFC 87/90/87% efficient at 20/50/100% load (115V) 90/92/89% efficient at 20/50/100% load (230V) 210W active PFC 90/92/89% efficient at 20/50/100% load(115V) 91/93/90% efficient at 20/50/100% load(230V)
External Power Adapter	External power supply 65W EPS, 88% average efficiency at 115V & 89% at 230Vac 90W EPS, 88% average efficiency at 115V & 89% at 230Vac 150W EPS, 88% average efficiency at 115V & 89% at 230Vac	Internal power supply
Operating Voltage Range	90Vac~264Vac	90Vac~264Vac
Rated Voltage Range	100Vac~240Vac	100Vac~240Vac
Rated Line Frequency	50HZ~60HZ	50HZ~60HZ
Operating Line Frequency	47HZ~63HZ	47HZ~63HZ
Rated Input Current with Energy Efficient* Power Supply	65W ≤ 1.6A 90W ≤ 1.7A 150W ≤ 2.5A	180W ≤ 2.3A 210W ≤ 2.5A

Technical Specifications – Power

DC Output	+19.5V	+12V
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.
Power Supply Fan	N/A	50mm variable speed
Power cord length	6.0 ft. (1.83 m)	6.0 ft. (1.83 m)
Dimensions	65W: 90 x 51 x 28.5mm & 102 x 55 x 30mm 90W: 126 x 50 x 30mm 150W: 148 x 75.5 x 25.4mm	200mm x 85mm x 53mm

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

Technical Specifications – Weights and Dimensions

WEIGHTS & DIMENSIONS

	<u>DM</u>	<u>SFF</u>
Chassis (W x D x H) Not including bezel	6.97 x 6.89 x 1.35 in 177 x 175 x 34.2 mm	3.84 x 10.63 x 11.93 in 97.5 x 270 x 303 mm
System Volume	64 cu in 1.05 L	747cu in 7.8L
Max System Weight	1.45kg	4.89KG
Max Supported Weight (desktop orientation)	0	77 lb 35kg
Stand Dimensions	160x117x18.5mm	200 x 152 x 372 mm
Packaging (W x D x H)	19.57 x 5.04 x 8.78 in 497 x 128 x 223 mm	15.71 x 9.06 x 19.65 in 399 x 230 x 499 mm
Shipping Weight	2.95 kg 6.49 lb	16.12 lb. 7.32 kg
Shipping Weight (Molded Pulp)	3.05 kg 6.72 lb	16.62 lb 7.54kg
Multipack Packaging (10 units)	20.28x16.54x25 in 515x420x636 mm	
Palletization Profile	10-units per layer 11, 15, or 18 layers max depending on details of freight 110 units per air freight pallet 46.26 x 39.21 x 62.87 in 1175 x 996 x 1597 mm (include pallet), or 150 units per standard ground or sea freight pallet 46.26 x 39.21 x 83.86 in 1175 x 996 x 2130 mm (include pallet), or 180 units per ground freight or high-cube sea pallet 46.26 x 39.21 x 99.45 in 1175 x 996 x 2526 mm (include pallet)	6-units per layer 60 per pallet 47.24 x 39.37 x 94.49 in (including pallet) 10 layer max

Technical Specifications – Miscellaneous Features

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.
- 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
- System/Private 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
- NIC LEDs (integrated) (Green & Amber)
- HD LED - To Indicate Normal Operations
- Color coordinated cables and connectors
- Tool-less Hood Removal
- Front power switch
- System memory can be upgraded without removing the system board
- Tool-less Hard drive & DVD drive Removal
- Green Pull Tabs, and Quick Release Latches for easy Identification

Technical Specifications – Miscellaneous Features

Additional Features

Tower Orientation

Description

Product can be oriented as either a desktop (horizontal) or a tower (vertical) for MT, and DM only. 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

NOTE: Storage Drive lock does not work with Self Encrypting storage

After Market Options

AFTER MARKET OPTIONS

Graphics Solutions	DM	SFF	Part Number
AMD® Radeon™ R7 430 2GB 2 DisplayPort™ 64bit Card		X	5LH79AA
AMD® Radeon™ R7 430 2GB DisplayPort™ VGA 64bit Card ¹		X	5JW81AA
AMD® Radeon™ RX550X 4GB DisplayPort™ Card		X	5LH79AA

¹.Not available in all regions

Desktop Mini Accessories	DM	SFF	Part Number
HP Desktop Mini Port Cover v3	X (discrete GPU not supported)		13L69AA
HP Desktop Mini 2.5" SATA Drive Bay kit v2	X (discrete GPU not supported)		13L70AA
HP Desktop Mini 65W Power Supply Kit	X		L2X04AA
HP Desktop Mini 90W Power Supply Kit	X		L4R65AA
HP Desktop Mini LockBox V2 ¹	X (discrete GPU not supported)		3EJ57AA
HP Desktop Mini DVD-Writer ODD Expansion Module	X		K9Q83AA
HP Desktop Mini I/O Expansion Module	X		K9Q84AA
HP Desktop Mini Security/Dual VESA Sleeve v3 ¹	X (discrete GPU not supported)		13L67AA
HP Desktop Mini Security/Dual VESA Sleeve v3 with Power Supply Holder ¹	X (discrete GPU 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		7DB37AA
HP B500 PC Mounting Bracket	X		2DW52AA
HP Desktop Mini Vertical Chassis Stand	X		G1K23AA
HP DM VESA Power Supply Holder Kit v2	X (discrete GPU not supported)		7DB38AA
HP Quick Release Bracket 2	X		6KD15AA

¹.Not available in all regions

Data Storage Drives	DM	SFF	Part Number
HP PCIe NVME TLC 256GB SSD M.2 Drive	X	X	1CA51AA
HP PCIe NVME TLC 512GB SSD M.2 Drive	X	X	X8U75AA
HP 500GB 7200PRM SATA 6.0Gb/s 3.5" Hard Drive		X	QK554AA
HP 1TB 7200rpm SATA 6Gb/s 3.5" Hard Drive		X	QK555AA
HP 9.5mm DVD Writer		X	1CA53AA



After Market Options

Input Devices	DM	SFF	Part Number
HP Desktop Wired 320K Keyboard	X	X	9SR37AA
HP Desktop Wired 320MK Mouse and Keyboard	X	X	9SR36AA
HP Wireless Business Slim Keyboard and Mouse	X	X	N3R88AA
HP USB Business Slim CCID SmartCard Keyboard	X	X	Z9H48AA
HP USB Keyboard	X	X	QY776AA
HP USB Keyboard and Mouse Healthcare Edition	X	X	1VD81AA
HP USB Premium Keyboard	X	X	Z9N40AA
HP USB PS/2 Washable Keyboard & Mouse	X	X	BU207AA
HP Wireless Premium Keyboard	X	X	Z9N41AA
HP PS/2 Business Slim Keyboard		X	N3R86AA
HP Desktop Wired 320M Mouse	X	X	9VA80AA
HP USB Fingerprint Mouse	X	X	4TS44AA
HP USB Premium Mouse	X	X	1JR32AA
HP PS/2 Mouse		X	QY775AA
HP Wireless Premium Mouse	X	X	1JR31AA
HP USB 1000dpi Laser Mouse	X	X	QY778AA
HP USB Optical Mouse	X	X	QY777AA

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

Multimedia Devices	DM	SFF	Part Number
HP Business Headset v2	X	X	T4E61AA
HP S101 Speaker Bar	X	X	5UU40AA
HP UC Speaker Phone v2	X		4VW02AA

After Market Options

Security Devices	DM	SFF	Part Number
HP Business PC Security Lock v3 Kit		X	3XJ17AA
HP Dual Head Keyed Cable Lock		X	T1A64AA
HP Keyed Cable Lock 10mm	X	X	T1A62AA
HP Master Keyed Cable Lock 10mm	X	X	T1A63AA
HP Sure Key Cable lock	X		6UW42AA

I/O Devices	DM	SFF	Part Number
HP DisplayPort Port Flex IO v2	X (discrete GPU not supported)	X	13L54AA
HP HDMI Port Flex IO v2	X (discrete GPU not supported)	X	13L55AA
HP Type-C USB 3.1 Gen2 Port Flex IO v2	X	X	13L59AA
HP Type-C USB 3.1 Gen2 Port with PD Flex IO v2	X (discrete GPU not supported)		13L60AA
HP VGA Port Flex IO v2	X (discrete GPU not supported)	X	13L53AA
HP USB 3.1 Gen1 x2 Module Flex IO v2	X (discrete GPU not supported)		13L58AA
HP Serial Port Flex IO v2	X (discrete GPU not supported)	X	3TK76AA
HP Serial Port Flex IO 2 v2	X (discrete GPU not supported)		13L57AA
HP USB to Serial Port Adapter		X	J7B60AA
HP USB-C to Display Port Adapter		X	N9K78AA
HP DisplayPort To HDMI True 4k Adapter	X	X	2JA63AA
HP DVI Cable Kit		X	DC198A
HP HDMI Standard Cable Kit	X	X	T6F94AA
HP DisplayPort Cable Kit	X	X	VN567AA
HP DisplayPort To DVI-D Adapter	X	X	FH973AA
HP DisplayPort To VGA Adapter	X	X	AS615AA

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

