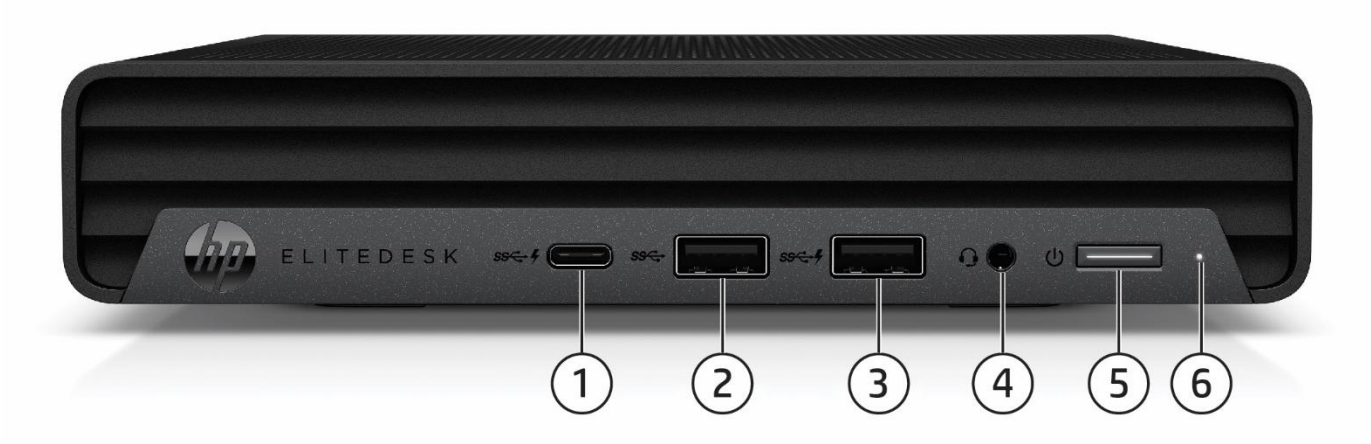
Overview

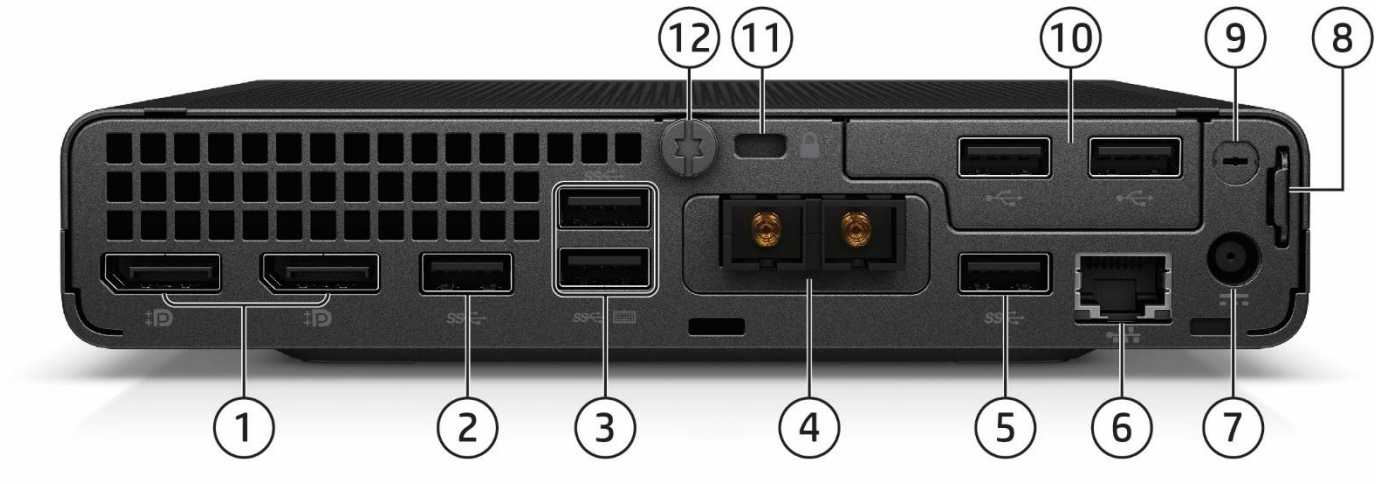
HP EliteDesk 805 G8 Desktop Mini PC



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/2.1A)
4. Universal Audio Jack with CTIA headset support
5. Dual-state power button
6. Hard Drive activity light

Overview

HP EliteDesk 805 G8 Desktop Mini PC



1. (2) Dual Mode DisplayPort™ 1.4 (DP++)
2. Type-A SuperSpeed USB 5Gbps signaling rate
3. 2 x Type-A SuperSpeed USB 10Gbps signaling rate (Supporting wake from S4 with keyboard/mouse connected and enabled in BIOS)
4. (1) Flex Port 1*, choice of:
   - DisplayPort™ 1.4
   - HDMI 2.0b
   - VGA
   - 2.5 GbE Ethernet NIC
   - Fiber NIC (1Gbps or 100Mbps, shown here installed)
   - (2) Type A SuperSpeed USB 5Gbps signaling rate
   - Type-C® SuperSpeed USB 10Gbps signaling rate port w/Alt Mode DisplayPort™ and power intake via USB Type-C Power Delivery up to 100W
5. Type-A SuperSpeed USB 5Gbps signaling rate
6. RJ-45 Network Adapter
7. Power connector
8. Retractable Padlock Loop
9. External WLAN antenna opening
10. (1) Flex Port 2, choice of:
    - VR Ready NVIDIA GTX 1660 Ti discrete GPU
    - (2) Type-A Hi-Speed USB 480Mbps signaling rate port (shown here installed)
    - Serial
    - Second external antenna
11. Standard cable lock slot (10mm)
12. Cover release thumbscrew

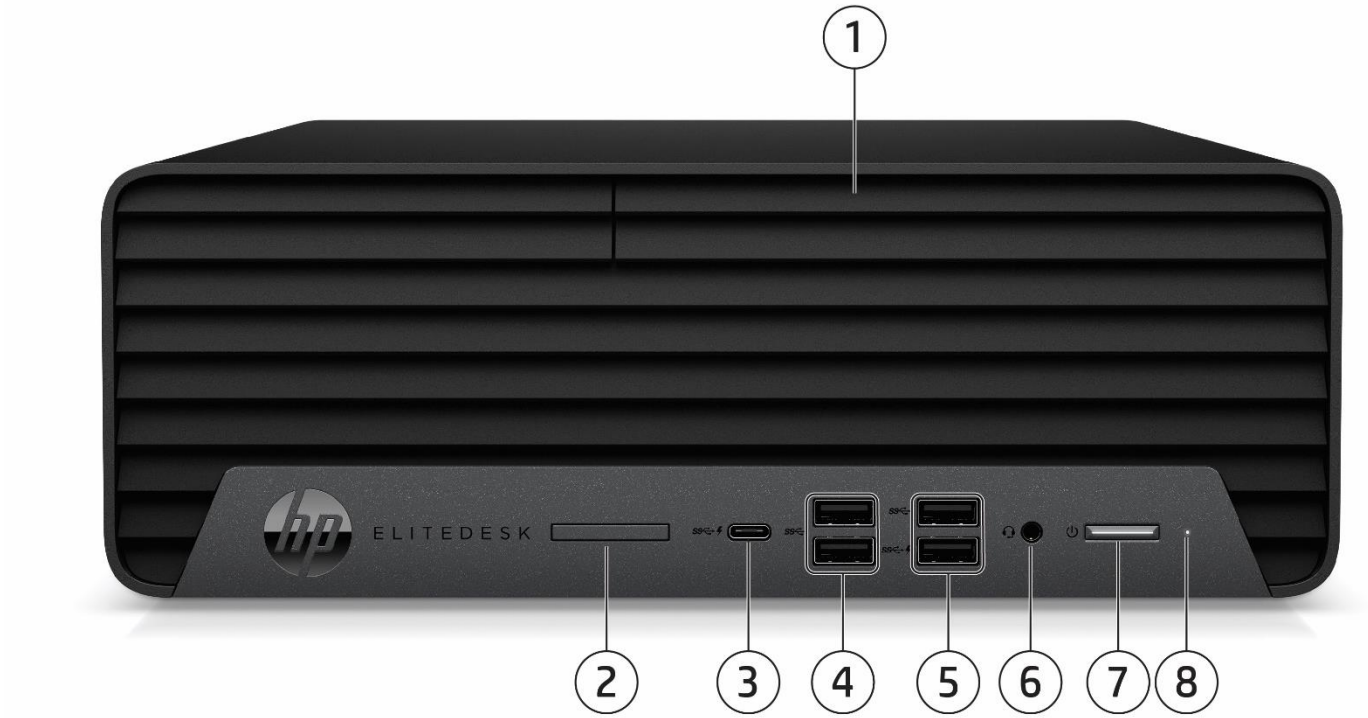
Not Shown

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

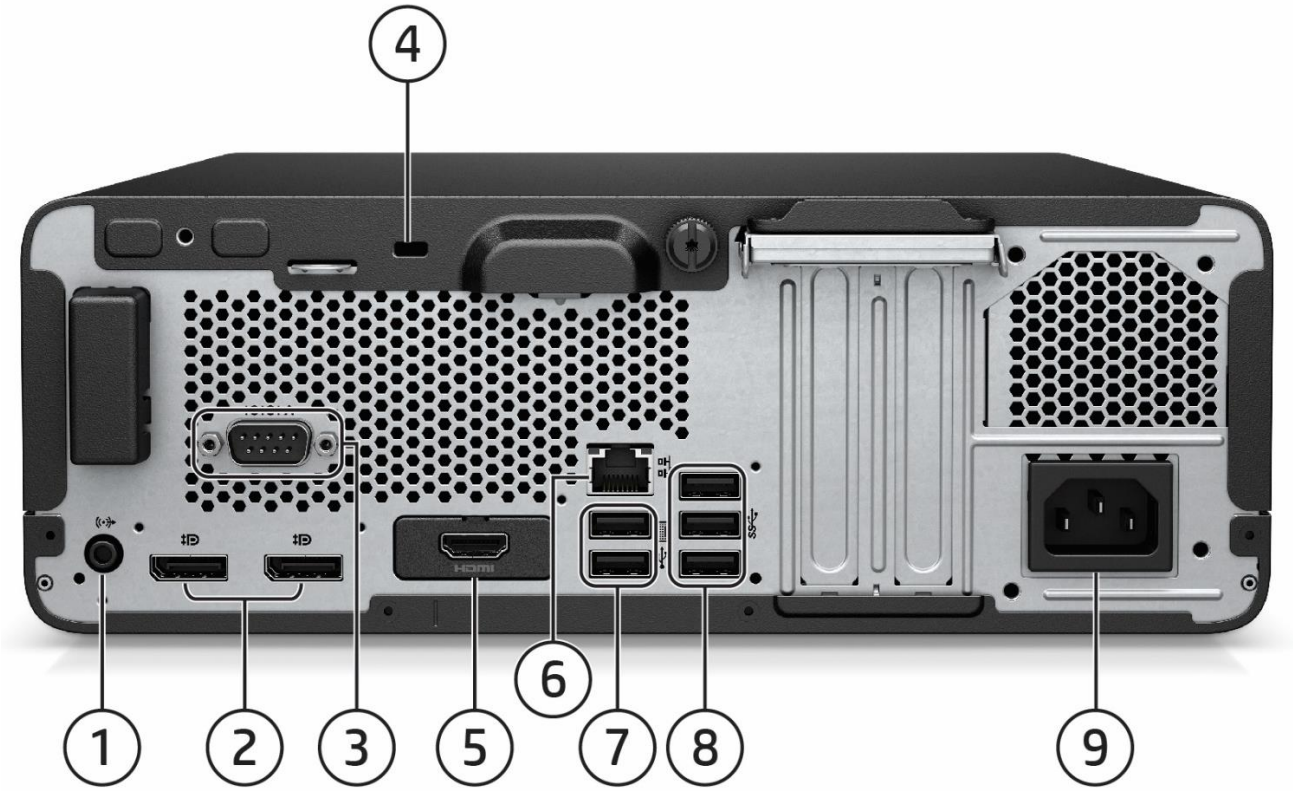
HP EliteDesk 805 G8 Small Form Factor PC



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 G8 Small Form Factor PC



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:
   - DisplayPort™ 1.4
   - HDMI 2.0b (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™
6. RJ-45 Network Adapter
7. 2 x Type A Hi-Speed USB 480MBps signaling rate (one with wake from keyboard)
8. 3 x 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 5000 series processors with Radeon™ Graphics[1]
- Support for up to 7 monitors on DM[2] and 6 monitors on SFF via two standard DisplayPort™ 1.4, a configurable flex port for video and a discrete graphics card.[7]
- Configurable flex port provides the following choices: HDMI 2.0b, 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 Display[4] (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) when configured with the NVIDIA® GeForce® VR ready discrete graphics card.
- Models can be configured with dual data drives in a RAID array
- Industry-standard AMD® PRO Manageability with full featured KVM
- Enhanced security with HP Security Suite (Refer to Security Section for details)
- ENERGY STAR® certified. EPEAT® registered[8]
- CCC, CECP and SEPA Certified
- TCO certified
- PC chassis and all internal components and modules are manufactured with low halogen content[5]
- 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)

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

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 G8 Desktop Mini PC
HP EliteDesk 805 G8 Small Form Factor PC

OPERATING SYSTEM

Preinstalled

Windows 10 Pro 64 - HP recommends Windows 10 Pro for business[1]
Windows 10 Pro 64 (National Academic only)[2]
Windows 10 Home 64[1]
Windows 10 Home Single Language 64[1]
Windows 10 Pro (Windows 10 Enterprise available with a Volume Licensing Agreement)[1]
FreeDOS
Windows10 Enterprise 64 (Web Support)[1]

1. Not all features are available in all editions or versions of Window. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com/.
2. Some devices for academic use will automatically be updated to Windows 10 Pro Education with the Windows 10 Anniversary Update. Features vary; see https://aka.ms/ProEducation for Windows 10 Pro Education feature information.

SUPPORTED VERSIONS

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

CHIPSET

	DM	SFF
AMD® PRO 565	**X**	**X**

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

PROCESSORS[12]

AMD® Ryzen™ 5000 series Desktop Processors with PRO technologies and integrated AMD® Radeon™ Graphics	DM	SFF
AMD Ryzen™ 7 PRO 5750G Processor (8C/16T, 20 MB cache, 4.6GH Boost) 65W	X	X
AMD Ryzen™ 7 PRO 5750GE Processor (8C/16T, 20MB cache, 4.6GHz Boost) 35W	X	
AMD Ryzen™ 5 PRO 5650G Processor (6C/12T, 19MB cache, 4.4GHz Boost) 65W	X	X
AMD Ryzen™ 5 PRO 5650GE Processor (6C/12T, 19MB cache, 4.4GHz Boost) 35W	X	
AMD Ryzen™ 3 PRO 5350G Processor (4C/8T, 10MB cache, 4.2GHz Boost) 65W	X	X
AMD Ryzen™ 3 PRO 5350GE Processor (4C/8T, 10MB cache, 4.2GHz Boost) 35W	X	

12. 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	DM	SFF
AMD® Radeon™ Graphics	X	X

Optional Discrete Graphics Solutions	DM	SFF
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® GTX 1660 Ti 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	DM	SFF
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 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)	DM	SFF
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)	DM	SFF
HDD 2 TB 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

NOTE*: Storage Drivelock does not work with Self Encrypting storage.

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

M.2 PCIe NMVe Solid State Drives (SSD)	DM	SFF
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

NOTE*: Storage Drivelock does not work with Self Encrypting storage.

Optical Disc Drives	DM	SFF
HP 9.5mm Slim DVD-ROM Drive		X
HP 9.5mm Slim DVD Writer Drive		X

Media Card Reader	DM	SFF
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	DM	SFF
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	DM	SFF
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)	DM	SFF
Realtek RTL8111FPH-CG Gigabit Network Connection (standard)[1]	X	X
Intel® I225-T1 PCIe x1 Gigabit Network Interface Card (optional)		X

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

Wireless[1]	DM	SFF
Realtek 8852AE Wi-Fi 6 and Bluetooth® M.2 Combo Card[2]	X	X
Realtek 8852AE Wi-Fi 6 (2x2) and Bluetooth® 5 Combo with external antenna[2]	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	DM	SFF
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 PS/2 Business Slim Keyboard		X
HP Wireless Business Slim Keyboard and Mouse	X	X
HP Wireless Premium Keyboard and Mouse	X	X
HP Wireless Premium Keyboard	X	X
HP 125 Wired Keyboard	X	X
HP 125 Antimicrobial Wired Keyboard	X	X
HP 225 Antimicrobial Wired Mouse and Keyboard Combo	X	X
HP 225 Wired Mouse and Keyboard Combo	X	X

Mouse	DM	SFF
HP Wired Desktop 320M Mouse	X	X
HP PS/2 Mouse		X
HP USB Premium Mouse	X	X
HP USB and PS/2 Washable Mouse	X	X
HP USB Fingerprint Reader Mouse	X	X
HP 125 Wired Mouse	X	X
HP 125 Antimicrobial Wired Mouse[1]	X	X
HP 128 Laser Wired Mouse	X	X

1. Available in China only.

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

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

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

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

(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 or HDMI 2.0 or VGA	(1) DisplayPort™ 1.4 or HDMI 2.0 or 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

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

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

Manageability Features
HP Driver Packs (download)[10]
HP Client Catalog (download)
HP Image Assistant (download)
HP Manageability Integration Kit for Microsoft System Center Configuration Management (download)[11]
Ivanti Management Suite (download)[12]
HP Cloud Recovery[13]
HP Client Management Script Library (download)

Security Management
HP Pro Security Edition (optional)[14]
HP Sure Sense[15]
HP Sure Admin[16]
HP Sure Click[17]
HP Sure Start Gen6[18]
HP Sure Run Gen4[19]
HP Sure Recover Gen4[20]
HP Client Security Manager Gen7[21]
TPM 2.0 Embedded Security Chip (Common Criteria EAL4+ Certified) (FIPS 140-2 Level 2 Certified)

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

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

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

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

ENVIRONMENTAL & INDUSTRY

ENERGY STAR® certified models available

ENERGY STAR® certified. EPEAT® registered[43].
Low halogen (chassis, all internal components and modules)[44]
TAA compliant models available

43. Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. EPEAT® status varies by country. Visit www.epeat.net for more information.
44. 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)[45] 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)

45. 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 G8 Desktop Mini PC

Eco-Label Certifications & declarations	This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks: • IT ECO declaration • US ENERGY STAR® • EPEAT® Gold registered in the United States. Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. EPEAT® status varies by country. Visit http://www.epeat.net for more information. • TCO Certified 8.0		
System Configuration	The configuration used for the Energy Consumption and Declared Noise Emissions data for the Desktop model is based on a “Typically Configured Desktop”.		
Energy Consumption (in accordance with US ENERGY STAR® test method)	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Short idle)	7.629 watt	7.792 watt	7.459 watt

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

Normal Operation (Long idle)	7.185 watt	7.301 watt	7.101 watt
Sleep	0.819 watt	0.867 watt	0.819 watt
Off	0.658 watt	0.719 watt	0.658 watt
	NOTE: Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.		
Heat Dissipation*	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Short idle)	26.01489 BTU/hr	26.57072 BTU/hr	25.43519 BTU/hr
Normal Operation (Long idle)	24.50085 BTU/hr	24.89641 BTU/hr	24.21441 BTU/hr
Sleep	2.79279 BTU/hr	2.95647 BTU/hr	2.79279 BTU/hr
Off	2.24378 BTU/hr	2.45179 BTU/hr	2.24378 BTU/hr
	NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.		

Declared Noise Emissions (in accordance with ISO 7779 and ISO 9296)	Sound Power (L_{WAd}, bels)	Sound Pressure (L_{pAm}, decibels)
Typically Configured – Idle	2.8	17
Fixed Disk – Random writes	3.3	23

Longevity and Upgrading	This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the product may include: Spare parts are available throughout the warranty period and or for up to “5” years after the end of production.
Batteries	his battery(s) in this product comply with EU Directive 2006/66/EC Batteries used in the product do not contain: Mercury greater the1ppm by weight Cadmium greater than 20ppm by weight Battery size: Not Applilcable Battery type: Not Applilcable
Additional Information	• This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2011/65/EC. • This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC. • This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986). • This product is in compliance with the IEEE 1680.1 (EPEAT) standard at the <Gold> level, based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. EPEAT® status varies by country. Visit http://www.epeat.net for more information. • Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043. • This product contains 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

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

	Internal:	PAPER/Molded Pulp	74 g
		PLASTIC/Polyethylene low density - LDPE	5 g
Material Usage	This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/gse.pdf): • Asbestos • Certain Azo Colorants • Certain Brominated Flame Retardants – may not be used as flame retardants in plastics • Cadmium • Chlorinated Hydrocarbons • Chlorinated Paraffins • Formaldehyde • Halogenated Diphenyl Methanes • Lead carbonates and sulfates • Lead and Lead compounds • Mercuric Oxide Batteries • Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user. • Ozone Depleting Substances • Polybrominated Biphenyls (PBBs) • Polybrominated Biphenyl Ethers (PBBEs) • Polybrominated Biphenyl Oxides (PBBOs) • Polychlorinated Biphenyl (PCB) • Polychlorinated Terphenyls (PCT) • Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications. • Radioactive Substances • Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)		
Packaging Usage	HP follows these guidelines to decrease the environmental impact of product packaging: • Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials. • Eliminate the use of ozone-depleting substances (ODS) in packaging materials. • Design packaging materials for ease of disassembly. • Maximize the use of post-consumer recycled content materials in packaging materials. • Use readily recyclable packaging materials such as paper and corrugated materials. • Reduce size and weight of packages to improve transportation fuel efficiency. • Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.		
End-of-life Management and Recycling	HP Inc. offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/go/reuse-recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. 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.		
HP Inc. Corporate Environmental Information	For more information about HP's commitment to the environment: Global Citizenship Report http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html Eco-label certifications http://www8.hp.com/us/en/hp-information/environment/ecolabels.html		

	ISO 14001 certificates: http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/PC_GBU_Product_Design_ISO_14K_Certificate.pdf and http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf

HP EliteDesk 805 G8 Small Form Factor PC

Eco-Label Certifications & declarations	This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks: • IT ECO declaration • US ENERGY STAR® • EPEAT® Gold registered in the United States Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. EPEAT® status varies by country. Visit http://www.epeat.net for more information. • TCO Certified 8.0		
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)	13.416 watt	13.375 watt	13.423 watt
Normal Operation (Long idle)	13.058 watt	13.18 watt	13.143 watt
Sleep	0.776 watt	0.787 watt	0.78 watt
Off	0.69 watt	0.694 watt	0.693 watt
	NOTE: Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.		
Heat Dissipation*	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Short idle)	45.74856 BTU/hr	45.60875 BTU/hr	45.77243 BTU/hr
Normal Operation (Long idle)	44.52778 BTU/hr	44.9438 BTU/hr	44.81763 BTU/hr
Sleep	2.64616 BTU/hr	2.68367 BTU/hr	2.6598 BTU/hr
Off	2.3529 BTU/hr	2.36654 BTU/hr	2.36313 BTU/hr
	NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.		

Declared Noise Emissions (in accordance with ISO 7779 and ISO 9296)	Sound Power (L_{WAd}, bels)	Sound Pressure (L_{pAm}, decibels)
Typically Configured – Idle	3.2	23
Fixed Disk – Random writes	3.2	23
Longevity and Upgrading	This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the product may include:	

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	This battery(s) in this product comply with EU Directive 2006/66/EC Batteries used in the product do not contain: Mercury greater the1ppm by weight Cadmium greater than 20ppm by weight Battery size: CR2032 (coin cell) Battery type: Lithium		
Additional Information	This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2011/65/EC. • This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC. • This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986). • This product is in compliance with the IEEE 1680.1 (EPEAT) standard at the <Gold> level, based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. EPEAT® status varies by country. Visit http://www.epeat.net for more information. • Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043. • This product contains 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	This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/gse.pdf): • Asbestos • Certain Azo Colorants • Certain Brominated Flame Retardants – may not be used as flame retardants in plastics • Cadmium • Chlorinated Hydrocarbons • Chlorinated Paraffins • Formaldehyde • Halogenated Diphenyl Methanes • Lead carbonates and sulfates • Lead and Lead compounds • Mercuric Oxide Batteries • Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user. • Ozone Depleting Substances • Polybrominated Biphenyls (PBBs) • Polybrominated Biphenyl Ethers (PBBEs) • Polybrominated Biphenyl Oxides (PBBOs) • Polychlorinated Biphenyl (PCB) • Polychlorinated Terphenyls (PCT) • Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications. • Radioactive Substances • Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)		

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

Packaging Usage	HP follows these guidelines to decrease the environmental impact of product packaging: • Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials. • Eliminate the use of ozone-depleting substances (ODS) in packaging materials. • Design packaging materials for ease of disassembly. • Maximize the use of post-consumer recycled content materials in packaging materials. • Use readily recyclable packaging materials such as paper and corrugated materials. • Reduce size and weight of packages to improve transportation fuel efficiency. • Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.
End-of-life Management and Recycling	HP Inc. offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/go/reuse-recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/recyclers. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment. Global Citizenship Report http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html Eco-label certifications http://www8.hp.com/us/en/hp-information/environment/ecolabels.html ISO 14001 certificates: http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/PC_GBU_Product_Design_ISO_14K_Certificate.pdf and http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf

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

SERVICE AND SUPPORT

On-site Warranty[46]: One-year (1-1-1) limited warranty delivers three years of on-site, next business day[47] service for parts and labor and includes free support 24 x 7[48]. 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.[49]

46. Terms and conditions may vary by country. Certain restrictions and exclusions apply. Other warranty variations may be offered in your region.
47. 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.
48. 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.
49. 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® registered based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. EPEAT® status varies by country. Visit http://www.epeat.net for more information.

PROCESSORS

AMD® Ryzen™ 5000 Series Processors

All HP EliteDesk 805 G8 PC´s are designed to ensure stability.

Architecture: “Zen 3”
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

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 4GB 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	Maximun pixel clock :1.3 GHz pixels per second Maximun 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

STORAGE

3.5inch 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/2.54 cm
Width	Media diameter: 3.5 in/8.89 cm Physical size: 4 in/10.2 cm
Operating Temperature	41° to 131° F (5° to 55° C)

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

1TB 7200RPM 3.5in SATA HDD

Capacity	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/2.54 cm
Width	Media diameter: 3.5 in/8.89 cm Physical size: 4 in/10.2 cm
Operating Temperature	41° to 131° F (5° to 55° C)

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

2TB 7200RPM 3.5in SATA HDD

Capacity	2TB
Rotational Speed	7,200 rpm
Interface	SATA 6 Gb/s
Buffer Size	64MB
Logical Blocks	3,907,050,336
Seek Time	11 ms (Average)
Height	1.028 in/26.11 mm
Width (nominal)	4.0 in/101.6 mm
Operating Temperature	41° to 131° F (5° to 55° C)

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

2.5 inch SATA HARD DISC DRIVES (HDD)

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	0.374 in/9.5 mm (nominal)
Width (nominal)	2.75 in/70 mm (nominal)
Operating Temperature	41° to 131° F (5° to 55° C)

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

500GB 7200RPM 2.5in SATA HDD

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

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

1TB 7200RPM 2.5in SATA HDD

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

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

500GB 7200RPM 2.5in Self Encrypted 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	2.75 in/70 mm (nominal)
Operating Temperature	41° to 131° F (5° to 55° C)

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

M.2 PCIe NMVe 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.

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
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 3500MB/s
Maximum Sequential Write	Up to 3000MB/s
Logical Blocks	3,907,029,168
Operating Temperature	0° to 70°C (32° to 158°F) [ambient temp]
Features	TRIM; ASPM L1.2

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

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

Drive Weight	< 10g
Capacity	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
Maximum Sequential Read	Up to 2900MB/s

Technical Specifications – Storage

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)

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

Technical Specifications – Storage

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 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)

NOTE: Don't copy copyright-protected materials.

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

Intel® I225-LM 2.5 Gigabit Network Connection LOM (non-vPro)	
Connector	RJ-45
System Interface	PCI(Intel proprietary) + SMBus
Data rates supported	1. 10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14) 2. 100 Mbit/s operation (100BASE-TX; IEEE 802.3u; IEEE 802.3 clauses 21-30) 3. 1000 Mbit/s operation (1000BASE-T; IEEE 802.3ab; IEEE 802.3 clauses 40) 4. 2.5 Gbit/s operation (2.5GBASE-T; IEEE 802.3bz Clause 126) 5. Auto-Negotiation (Automatic Speed Selection) Full Duplex Operation at all Speeds, Half Duplex operation at 10, 100 & 1000 Mbit/s
IEEE Compliance	IEEE 802.1p QoS (Quality of Service) Support IEEE 802.1q VLAN support IEEE 802.3x Flow Control (IEEE 802.3 clauses 31-32; configurable) IEEE 802.3az EEE (Energy Efficient Ethernet) IEEE 802.3i 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3ab 1000BAE-T IEEE 802.3bz 2.5GBASE-T

Technical Specifications – Networking and Communications

Performance	TCP/IP/UDP Checksum Offload (configurable) Protocol Offload (ARP & NS) Large send offload and Giant send offload Receiving Side Scaling 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 modern standby or sleep state (Magic Packet and Microsoft Wake-Up Frame); Wake-on-LAN from off (Magic Packet only) PXE 2.1 Remote Boot Statistics Gathering (SNMP MIB II, Ethernet-like MIB, Ethernet MIB (802.3x, clause 30)) Comprehensive diagnostic and configuration software suite Virtual Cable Doctor for Ethernet cable status
Security & Manageability	Intel® non-vPro™ support with appropriate Intel® chipset components

Realtek RTL8852AE 802.11ax 2x2 Wi-Fi® + BT5.2 (802.11ax 2x2, supporting gigabit data rate) **NOTE:** Wi-Fi 5 or 6 is designed to support gigabit data rate when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 80MHz and higher channels.	
Wireless LAN Standards	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac IEEE 802.11ax IEEE 802.11d IEEE 802.11e IEEE 802.11h IEEE 802.11i IEEE 802.11k IEEE 802.11r IEEE 802.11v
Interoperability	Wi-Fi CERTIFIED™ modules
Frequency Band	802.11b/g/n/ax • 2.402 – 2.482 GHz 802.11a/n/ac/ax • 4.9 – 4.95 GHz (Japan) • 5.15 – 5.25 GHz • 5.25 – 5.35 GHz • 5.47 – 5.725 GHz • 5.825 – 5.850 GHz
Data Rates	• 802.11b: 1, 2, 5.5, 11 Mbps • 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11n: MCS 0 ~ MCS 15, (20MHz, and 40MHz) • 802.11ac : MCS0 ~ MCS9, (1SS, and 2SS) (20MHz, 40MHz & 80MHz) • 802.11ax : MCS0 ~ MCS11, (1SS and 2SS) (20MHz, 40MHz, ,80MHz)

Technical Specifications – Networking and Communications

Modulation	Direct Sequence Spread Spectrum BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024QAM
Security[3]	• IEEE and Wi-Fi CERTIFIED™ 64 / 128 bit WEP encryption for a/b/g mode only • AES-CCMP: 128 bit in hardware • 802.1x authentication • WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. • WPA2 certification • WPA3 certification • IEEE 802.11i • WAPI
Network Architecture Models	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)
Roaming	IEEE 802.11 compliant roaming between access points
Output Power[2]	• 802.11b : +18.5dBm minimum • 802.11g : +17.5dBm minimum • 802.11a : +18.5dBm minimum • 802.11n HT20(2.4GHz) : +15.5dBm minimum • 802.11n HT40(2.4GHz) : +14.5dBm minimum • 802.11n HT20(5GHz) : +15.5dBm minimum • 802.11n HT40(5GHz) : +14.5dBm minimum • 802.11ac VHT80(5GHz) : +11.5dBm minimum • 802.11ax HT40(2.4GHz) : +10dBm minimum • 802.11ax VHT160(5GHz) : +10dBm minimum
Power Consumption	• Transmit mode :2.5 W • Receive mode :2 W • Idle mode (PSP) 180 mW (WLAN Associated) • Idle mode :50 mW (WLAN unassociated) • Connected Standby/Modern Standby: 10mW • Radio disabled: 8 mW
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity[3]	802.11b, 1Mbps : -93.5dBm maximum 802.11b, 11Mbps : -84dBm maximum 802.11a/g, 6Mbps : -86dBm maximum 802.11a/g, 54Mbps : -72dBm maximum 802.11n, MCS07 : -67dBm maximum 802.11n, MCS15 : -64dBm maximum 802.11ac, MCS0 : -84dBm maximum 802.11ac, MCS9 : -59dBm maximum 802.11ax, MCS11(HE40): -57dBm maximum 802.11ax, MCS11(HE80): -54dBm maximum
Antenna type	High efficiency antenna with spatial diversity, mounted in the display enclosure Two embedded dual band 2.4/5 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications
Form Factor	PCI-Express M.2 MiniCard
Dimensions	1. Type 2230 : 2.3 x 22.0 x 30.0 mm 2. Type 1216: 1.67 x 12.0 x 16.0 mm
Weight	1. Type 2230 : 2.8g 2. Type 126: 1.3g
Operating Voltage	3.3v +/- 9%

Technical Specifications – Networking and Communications

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 **Certifications**	ETS 300 328, ETS 300 826 Low Voltage Directive IEC950 UL, CSA, and CE Mark	
Bluetooth Profiles Supported	BT4.1-ESR 5/6/7 Compliance LE Link Layer Ping LE Dual Mode LE Link Layer LE Low Duty Cycle Directed Advertising LE L2CAP Connection Oriented Channels Train Nudging & Interlaced Scan BT4.2 ESR08 Compliance LE Secure Connection- Basic/Full LE Privacy 1.2 –Link Layer Privacy LE Privacy 1.2 –Extended Scanner Filter Policies LE Data Packet Length Extension FAX Profile (FAX) Basic Imaging Profile (BIP)2 Headset Profile (HSP) Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP) BT5.1 ESR9/10 Compliance LE Advertisement Extensions	

	Channel Selection Algo Limited High Duty Cycle Non-Connectable Advertising 2Mbps LE LE Long Range

I/O DEVICES

HP 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 x13.2 mm)
	Weight	1.54 lb (698g)
	Operating voltage	5 VDC, +/-5%
	Power consumption	35mA (All LED on)
Electrical	System interface	USB Type A plug connector
	ESD	Contact Discharge: 8 KV Air Discharge: 15 KV
	EMI - RFI	Conforms to FCC rules for a Class B computing device
	Keycaps	Low-profile design
	Switch actuation	60±10g nominal peak force with tactile feedback
	Switch life	10 million keystrokes (Life tester)
Mechanical	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)
	Operating humidity	10% to 90% (non-condensing at ambient)
	Non-operating humidity	20% to 80% (non-condensing at ambient)
Environmental	Operating shock	40 g, six surfaces
	Non-operating shock	80 g, six surfaces
	Operating vibration	2-g peak acceleration
	Non-operating vibration	4-g peak acceleration
	Drop (out of box)	26 in (66 cm) on carpet, six-drop sequence
	Drop (in box)	30 in (76.2 cm) on concrete, 16-drop sequence
Approvals	UL, FCC, CE Mark, TUV GS, VCCI, BSMI, 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 mmm)	
Weight	0.19lb (90g)	
Environmental	Operating temperature	50° to 122°F (10° to 50° C)
	Non-operating temperature	-22° to 140°F (-30° to 60° C)
	Operating humidity	10% to 90% (non-condensing at ambient)
	Non-operating humidity	20% to 80% (non condensing at ambient)
	Operating shock	50 g, 6 surfaces
	Non-operating shock	80 g, 6 surfaces
	Operating vibration	2 g peak acceleration
	Non-operating vibration	4 g peak acceleration
Electrical	Operating voltage	5 VDC, +/-5%
	Power consumption	12mA
Mechanical	Connector	USB 2.0
	Type	3D mouse (3 keys and wheel)
	Resolution	800, 1200, 1600 DPI
Tracking speed	Sensor	Pixart PAN3606DL
	Tracking acceleration	8G(max), 1G=9.8m/s2
	Cable length	6 ft (1.8 m)
Regulatory approvals	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	800 DPI sensitivity
	Buttons	Two primary buttons and clickable scroll wheel

AUDIO/MULTIMEDIA

HP EliteDesk 805 G8 Small Form Factor PC

Type	Integrated
HD Stereo Codec	Realtek ALC3867
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 G8 Desktop Mini PC

Type	Integrated
HD Stereo Codec	Realtek ALC3867
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
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

POWER

HP EliteDesk 805 G8 Small Form Factor 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 G8 Desktop Mini 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 Gold		180W active PFC / 80 PLUS Gold 87/90/87% efficient at 20/50/100% load (115V) 90/92/89% efficient at 20/50/100% load (230V)
80 PLUS Platinum		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

Technical Specifications – Power

Rated Input Current	65W≦1.7A 90W≦1.7A 150W≦2.5A	180W≦2.3A 210W ≦2.8A
Rated Input Current with Energy Efficient* Power Supply	65W≦1.7A 90W≦1.7A 150W≦2.5A	180W≦2.3A 210W ≦2.8A
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: 90mm x 51mm x 28.5mm 90W: 126 x 50 x 30mm 150W: 148mm x 75.5mm 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

WEIGHTS & DIMENSIONS

	DM	SFF
Chassis (W x D x H)	6.97 x 6.89 x 1.35 in 177 x 175 x 34.2 mm	3.74 x 10.63 x 11.93 in 95 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)	19.61 x 9.25 x 5.20 in 498 x 235 x 132 mm	15.52 x 8.07 x 19.65 in 394 x 205 x 499 mm
Shipping Weight	2.95 kg 6.49 lb	14.58 lb. 6.62kg
Shipping Weight (Molded Pulp)	3.05 kg 6.72 lb	15.13lb 6.87kg
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 170units per ground freight or high-cube sea pallet 46.26 x 39.21 x 94.06 in 1175 x 996 x 2389 mm (include pallet)	6-units per layer 11 layers max 66 per pallet 47.24 x 39.37 x 93.90 in, 1200 x 1000 x 2380 mm (including pallet)

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

Additional Features	Description
Tower Orientation	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

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 and Mouse Healthcare Edition	X	X	1VD81AA
HP USB Premium Keyboard	X	X	Z9N40AA
HP Wireless Premium Keyboard	X	X	Z9N41AA
HP PS/2 Business Slim Keyboard		X	N3R86AA
HP 125 Wired Keyboard	X	X	266C9AA
HP 225 Antimicrobial Wired Mouse and Keyboard Combo	X	X	286K3AA
HP 225 Wired Mouse and Keyboard Combo	X	X	286J4AA
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 125 Wired Mouse	X	X	265A9AA
HP 128 Laser Wired Mouse	X	X	265D9AA

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

I/O Devices	DM	SFF	Part Number
HP DisplayPort Port Flex IO v2	X	X	13L54AA
HP Type-C USB 3.1 Gen2 Port Flex IO v2		X	13L59AA
HP Type-C USB 3.1 Gen2 Port with PD Flex IO v2	X		13L60AA
HP VGA Port Flex IO v2	X	X	13L53AA
HP USB 3.1 Gen1 x2 Module Flex IO v2	X		13L58AA
HP Serial Port Flex IO v2	X	X	3TK76AA
HP Serial Port Flex IO 2nd v2	X (discrete GPU not supported)		13L57AA
HP USB to Serial Port Adapter	X	X	J7B60AA
HP DisplayPort To HDMI True 4k Adapter	X	X	2JA63AA
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. URL is: http://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c06042607

Change Log

Date	Version History	Action	Description of Change
July 1, 2021	From v1 to v2	Removal	Supporting wake from S5 removed from DM rear call outs
July 6, 2021	From v2 to v3	Removal	Intel® Wi-Fi 6 AX200 802.11ax 2x2 with Bluetooth® M.2 Combo Card
July 23, 2021	From v3 to v4	Removal	SFF dimensions, Storage, Environmental, Supported versions and AMO sections updated
	From v4 to v5		
	From v5 to v6		
	From v6 to v7		