



HP ProDesk 680 G4 Microtower PC (with PCI slot)

Powered for business, the HP ProDesk 680 MT is a highly expandable PC featuring flexible connectivity options, strong security, and comprehensive manageability features in a stylishly designed chassis for the modern workplace.



HP recommends Windows 10 Pro.

- Windows 10 Pro¹
- Intel® Core™ processors²

Expansion that extends your investment

- The full value of your investment comes with expansion that extends the life of your PC. The HP ProDesk 680 MT has four bays and four full-height slots, and configurable video and legacy ports.

Powerful options

- Get high-performance and expansion with 8th Gen Intel® Core™ processors². Amplify performance with optional Intel® Optane™ memory³, dual graphics cards⁴ and a 400w PSU⁴ for viewing VR content.

Built on a secure foundation

- Protect your PC against the evolving malware threats of the future, with our self-healing, hardware-enforced, and manageable security solutions. From the BIOS to the browser HP Sure Start Gen4⁵ and HP Sure Click⁶ help secure your PC.

Featuring

- Power through your day with Windows 10 Pro with built-in security, collaboration, and connectivity.
- Protect the firmware that antivirus can't reach! The hardware-enforced self-healing protection offered by HP Sure Start Gen4 automatically recovers the BIOS from malware, rootkits, or corruption.
- Help protect your PC from websites, attachments, malware, ransomware, and viruses with hardware-enforced security from HP Sure Click.
- Keep productivity high and downtime low with HP BIOSphere Gen4 firmware-level automation. Your PCs have extra protection thanks to automatic updates and security checks.
- The HP Manageability Integration Kit Gen2 helps speed up image creation and management of hardware, BIOS, and security through Microsoft System Center Configuration Manager.
- HP Client Security Manager Gen4 features HP Multi-Factor Authenticate Gen2, HP Device Access Manager, HP SpareKey, and HP Password Manager. These tools work to keep data out of reach and defend against theft, attacks, and unauthorized users.
- Improve the quality and security of custom Windows images with HP Image Assistant Gen3 which assists ITDMs with image creation, identifies problems, and provides recommendations and remediation.
- Greatly improve data, voice, and video communication transfer rates over challenged LAN and Wi-Fi networks with HP Velocity.
- Rest easy with a PC that goes the distance and is designed to pass HP Total Test Process.

HP ProDesk 680 G4 Microtower PC (with PCI slot) Specifications Table



Form Factor	Microtower
Available Operating System	Windows 10 Pro 64 – HP recommends Windows 10 Pro. ¹ Windows 10 Pro 64 (National Academic only) ¹³ Windows 10 Home 64 ¹ Windows 10 Home Single Language 64 ¹ FreeDOS 2.0
Processor Family¹⁴	Intel® Celeron® processor (G4900 is Windows 10 only); 8th Generation Intel® Core™ i7 processor (i7-8700); 8th Generation Intel® Core™ i5 processor (i5-8500, i5-8600); 8th Generation Intel® Core™ i3 processor (i3-8100, i3-8300); Intel® Pentium® processor (G5400, G5500, G5600 are Windows 10 only); 8th Generation Intel® Core™ i7+ processor (i7-8700); 8th Generation Intel® Core™ i5+ processor (i5-8500, i5-8600)
Available Processors^{20,27,28}	Intel® Core™ i7-8700 with Intel® UHD Graphics 630 (3.2 GHz base frequency, up to 4.6 GHz with Intel® Turbo Boost Technology, 12 MB cache, 6 cores); Intel® Core™ i3-8100 with Intel® UHD Graphics 630 (3.6 GHz, 6 MB cache, 4 cores); Intel® Celeron® G4900 with Intel® UHD Graphics 610 (3.1 GHz, 2 MB cache, 2 cores); Intel® Core™ i5-8500 with Intel® UHD Graphics 630 (3 GHz base frequency, up to 4.1 GHz with Intel® Turbo Boost Technology, 9 MB cache, 6 cores); Intel® Pentium® Gold G5400 with Intel® UHD Graphics 610 (3.7 GHz, 4 MB cache, 2 cores); Intel® Core™ i5-8600 with Intel® UHD Graphics 630 (3.1 GHz base frequency, up to 4.3 GHz with Intel® Turbo Boost Technology, 9 MB cache, 6 cores); Intel® Pentium® Gold G5500 with Intel® UHD Graphics 630 (3.9 GHz, 4 MB cache, 2 cores); Intel® Pentium® Gold G5600 with Intel® UHD Graphics 630 (3.9 GHz, 4 MB cache, 2 cores); Intel® Pentium® Gold G5500 with Intel® UHD Graphics 630 (3.8 GHz, 4 MB cache, 2 cores); Intel® Core™ i7+ 8700 (Core™ i7 and 16 GB Intel® Optane™ memory) (3.2 GHz base frequency, up to 4.6 GHz with Intel® Turbo Boost Technology, 12 MB cache, 6 cores); Intel® Core™ i5+ 8600 (Core™ i5 and 16 GB Intel® Optane™ memory) (3.1 GHz base frequency, up to 4.3 GHz with Intel® Turbo Boost Technology, 9 MB cache, 6 cores); Intel® Core™ i5+ 8500 (Core™ i5 and 16 GB Intel® Optane™ memory) (3 GHz base frequency, up to 4.1 GHz with Intel® Turbo Boost Technology, 9 MB cache, 6 cores)
Chipset	Intel® Q370
Maximum Memory	64 GB DDR4-2666 SDRAM ^{3,4} Transfer rates up to 2666 MT/s.
Memory Slots	4 DIMM
Internal Storage	up to 500 GB SATA SED Opal 2 HDD ² up to 500 GB 7200 rpm SATA FIPS SED ² 500 GB up to 2 TB 5400 rpm SATA SSHD ² 256 GB up to 512 GB SATA SSD ² 256 GB up to 512 GB SATA SED Opal 2 TLC SSD ² 256 GB up to 512 GB SATA FIPS SSD ² 128 GB up to 512 GB PCIe® NVMe™ M.2 SSD ² 128 GB up to 1 TB PCIe® NVMe™ TLC M.2 SSD ² 500 GB up to 2 TB 7200 rpm SATA ² 256 GB up to 512 GB PCIe® NVMe™ SED Opal 2 TLC M.2 SSD ²
Optical Drive	HP 9.5 mm Slim DVD-Writer; HP 9.5 mm Slim DVD-ROM; HP 9.5 mm Slim Blu-ray writer ¹⁵
Available Graphics	Integrated: Intel® UHD Graphics 630; Intel® UHD Graphics 610 Discrete: NVIDIA® GeForce® GTX 1060 (3 GB GDDR5 dedicated); AMD Radeon™ R7 430 Graphics (2 GB GDDR5 dedicated); AMD Radeon™ RX 550 Graphics (4 GB GDDR5 dedicated); AMD Radeon™ RX 580 Graphics (4 GB GDDR5 dedicated) ^{15,18}
Audio	Conexant CX20632 codec, 2 W internal speaker, universal audio jack, headset and headphone front ports (3.5 mm), multi-streaming capable
Expansion Slots	1 M.2 2230; 1 M.2 2230/2280; 1 PCI x1; 1 PCIe 3 x1; 1 PCIe 3 x16; 1 PCIe 3 x16 (wired as x4); One 5-in-1 media card reader ¹⁷ (1 M.2 2230 slot for WLAN and 1 M.2 2230/2280 slot for storage.)
Ports and Connectors	Front: 1 headset connector; 1 USB 2.0; 1 USB 2.0 (fast charging); 2 USB 3.1 Gen 2; 1 USB 3.1 Type-C™ Gen 2 Rear: 1 audio-in; 1 audio-out; 1 power connector; 1 RJ-45; 2 USB 2.0; 2 DisplayPort™ 1.2; 2 USB 3.1 Gen 1; 2 USB 3.1 Gen 2 Optional: 1 DisplayPort™ 1.2; 1 HDMI 2.0; 1 serial and 1 serial and PS/2 ports combination; 1 USB 3.1 Type-C™ Gen 2 (DisplayPort™); 1 VGA
Input Devices	HP Conferencing Keyboard; HP PS/2 Business Slim Keyboard; HP USB Premium Keyboard and Mouse Combo; HP USB Wired Keyboard; USB Business Slim Standalone Wired Keyboard; HP USB Collaboration Wired Keyboard; HP Wireless Collaboration Keyboard; HP Wireless Premium Standalone Keyboard ⁶ HP PS/2 Mouse; HP USB 1000 dpi Laser Mouse; HP USB and PS/2 Washable Mouse; HP USB Hardened Mouse; HP USB Optical Mouse; HP USB Premium Mouse ⁶
Communications	LAN: Intel® I210-T1 PCIe® GbE; Intel® I219LM GbE ¹⁶ WLAN: Realtek RTL8822BE-CG 802.11a/b/g/n/ac (2x2) with Bluetooth® 4.1 M.2 PCIe®; Realtek RTL8821CE-CG 802.11a/b/g/n/ac (1x1) with Bluetooth® 4.2 M.2 PCIe®; Intel® Dual Band Wireless-AC 9560 802.11ac (2x2) and Bluetooth® 5 M.2 PCIe®, non-vPro™; Intel® Dual Band Wireless-AC 9560 802.11ac (2x2) and Bluetooth® 5 M.2 PCIe®, vPro™ ⁵
Drive Bays	1 5D 4 card reader; One 5.25" ODD; One 9 mm slim ODD; One 3.5" HDD; Two 2.5" HDD ³⁵
Available Software	Absolute Persistence module; HP Device Access Manager; HP ePrint Driver + JetAdvantage; HP Hotkey Support; HP Jumpstart; HP Noise Cancellation Software; HP PhoneWise; HP Recovery Manager; HP Secure Erase; HP Support Assistant; HP Sure Click; Microsoft Defender; Native Miracast Support; HP Wireless Wakeup; Buy Office (sold separately) ^{9,33,34}
Security Management	DriveLock; HP BIOSphere; HP Credential Manager; HP Password Manager; HP Power On Authentication; HP Spare Key; Intel® Identity Protection Technology (Intel® IPT); Power-on password (via BIOS); RAID configurations; Removable media write/boot control; SATA port disablement (via BIOS); Setup password (via BIOS); Support for chassis padlocks and cable lock devices; USB enable/disable (via BIOS); Solenoid lock and hood sensor; Master Boot Record Security; HP Client Security Suite Gen 4; HP Sure Start Gen 4; Pre-boot Authentication; Serial enable/disable (via BIOS); Trusted Platform Module TPM 2.0 Embedded Security Chip shipped with Windows 10 (Common Criteria EAL4+ Certified)(FIPS 140-2 Level 2 Certified) ^{7,23,24,25,26,29,30,36}
Management Features	HP BIOS Config Utility (download); HP Client Catalog (download); HP Driver Packs (download); HP System Software Manager (download); Update BIOS via Cloud or Network (BIOS feature); Ivanti Management Suite; HP Management Integration Kit for Microsoft System Center Configuration Management Gen 2 ^{10,21,22}
Power	250 W internal power supply, up to 92% efficiency, active PFC; 400 W internal power supply, up to 92% efficiency, active PFC
Dimensions	17 x 27.4 x 33.8 cm
Weight	7.14 kg (Configured with 1 HDD and 1 ODD. Weight will vary by configuration.)
Environmental	Low halogen ¹²
Energy Efficiency Compliance	ENERGY STAR® certified; EPEAT® Gold ¹¹

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Recommended Accessories and Services

HP Wireless Slim Business Keyboard



Enjoy easy data entry and wireless connectivity with the HP Wireless Business Slim Keyboard, designed to complement the 2015 class of HP Business PCs.

Product number: N3R88AA

HP 3-year Next Business Day Onsite Optional Customer Self Repair Desktop/Workstation Only Hardware Service



Receive 3 years of next business day onsite repair from an HP-qualified technician for your computing device, if the issue cannot be solved remotely. For more information on Care Pack services, please visit www.hp.com/go/cpc.

Product number: UE379E

Messaging Footnotes

- ¹ Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 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 Multi-Core is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering is not a measurement of higher performance.
- ³ Intel® Optane™ memory system acceleration does not replace or increase the DRAM in your system and requires configuration with an optional Intel® Core™ i(5 or 7)+ processor.
- ⁴ Sold separately or as an optional feature.
- ⁵ HP Sure Start Gen4 is available on HP Elite and HP Pro 600 products equipped with 8th generation Intel® or AMD processors.
- ⁶ HP Sure Click is available on select HP platforms and supports Microsoft® Internet Explorer, Google Chrome, and Chromium™. Supported attachments include Microsoft Office (Word, Excel, PowerPoint) and PDF files in read only mode. Check <http://h20195.www2.hp.com/v2/GetDocument.aspx?docname=4AA7-0922ENW> for all compatible platforms as they become available.
- ⁷ HP Sure Click is available on select HP platforms and supports Microsoft® Internet Explorer and Chromium™. Check <http://h20195.www2.hp.com/v2/GetDocument.aspx?docname=4AA7-0922ENW> for all compatible platforms as they become available.
- ⁸ HP BIOSphere Gen4 features may vary depending on the PC platform and configurations.
- ⁹ HP Manageability Integration Kit can be downloaded from <http://www.hp.com/go/clientmanagement>.
- ¹⁰ HP Client Security Manager Gen4 requires Windows and Intel® or AMD 8th Gen processors.
- Note: HP and Channel Partners cannot market or advertise Cortana in countries where the service is unavailable. At launch, Cortana will be available in the Australia, Brazil, Canada, China, France, Germany India, Italy, Japan, Mexico, Spain, the United Kingdom, and the United States.
- ⁷ Available on HP Elite and Pro platforms with 8th Gen Intel® or AMD processors. Features may vary by platform and configuration.
- ⁸ HP Manageability Integration Kit can be downloaded from <http://www.hp.com/go/clientmanagement>.
- ⁹ HP Client Security Manager Gen4 requires Windows and Intel® or AMD 8th Gen processors.
- ¹⁰ HP Multi Factor Authenticate Gen2 requires Windows, 7th or 8th generation Intel® Core™ processor, Intel® integrated graphics, and Intel® WLAN. Microsoft System Center Configuration Manager is required for deployment. Three authentication factors require Intel® vPro™.

Technical Specifications Footnotes

- ¹ Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 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 For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 16 GB (for Windows 7) and 36 GB (for Windows 8.1/10) of system disk is reserved for the system recovery software.
- ³ For systems configured with more than 3 GB of memory and a 32-bit operating system, all memory may not be available due to system resource requirements. Addressing memory above 4 GB requires a 64-bit operating system. Memory modules support data transfer rates up to 2133 MT/s; actual data rate is determined by the system's configured processor. See processor specifications for supported memory data rate.
- ⁴ All memory slots are customer accessible / upgradeable.
- ⁵ Wireless access point and internet service required.
- ⁶ Availability may vary by country.
- ⁷ Intel® Identity Protection Technology (Intel® IPT): Models configured with Intel® Core™ processors have the ability to utilize advanced security protection for online transactions. Intel® Identity Protection Technology (Intel® IPT) used in conjunction with participating web sites, provides double identity authentication by adding a hardware component in addition to the usual user name and password. Intel® Identity Protection Technology (Intel® IPT) is initialized through an HP Client Security module. HP BIOSphere Gen4: features may vary depending on the PC platform and configurations requires 8th Gen Intel® processors.
- ⁸ Absolute Persistence module: 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.
- ¹⁰ HP Driver Packs: not preinstalled, however available for download at <http://www.hp.com/go/clientmanagement>.
- ¹¹ EPEAT® registered where applicable. EPEAT registration varies by country. See www.epeat.net for registration status by country. See HP's 3rd party option store for solar energy accessory at www.hp.com/go/options.
- ¹² External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.
- ¹³ 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.
- ¹⁴ NOTE: Your product does not support Windows 8 or Windows 7. In accordance with Microsoft's support policy, HP does not support the Windows® 8 or Windows 7 operating system on products configured with Intel® and AMD 7th generation and forward processors or provide any Windows® 8 or Windows 7 drivers on <http://www.support.hp.com>
- ¹⁵ Sold separately or as an optional feature.
- ¹⁶ Intel® I210-T1 PCIe® GbE: Sold separately or as an optional feature, which is subject to change and availability.
- ¹⁷ (2) PCIe 3 x1: On certain models, it would be (1) PCI Express x1 and (1) PCI x1.
- ¹⁸ The MT can support a single graphics card up to 75W. When configured with dual graphics cards support is limited to 35W for each.
- ²⁰ Multi-core is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering, branding and/or naming is not a measurement of higher performance.
- ²¹ HP Management Integration Kit for Microsoft System Center Configuration Management Gen 2: can be downloaded from <http://www8.hp.com/us/en/ads/clientmanagement/overview.html>.
- ²² Ivanti Management Suite: subscription required.
- ²³ HP Client Security Suite Gen 4: requires Windows and Intel® or AMD 8th generation processors.
- ²⁴ HP Password Manager: requires Internet Explorer or Chrome™ or Firefox. Some websites and applications may not be supported. User may need to enable or allow the add-on / extension in the internet browser. HP Sure Start Gen 4: is available on HP ProDesk & ProOne products equipped with Intel® 8th generation processors.
- ²⁵ RAID configuration: sold separately or as an optional feature, multiple data drives setup in a RAID array is optional and requires product to be configured with vPro™ at purchase.
- ²⁶ Trusted Platform Module TPM 2.0 Embedded Security Chip shipped with Windows 10 (Common Criteria EAL4+ Certified)(FIPS 140-2 Level 2 Certified): In some scenarios, machines pre-configured with Windows OS might ship with TPM turned off.
- ²⁷ Intel® Optane™ memory system acceleration does not replace or increase the DRAM in your system and requires configuration with an optional Intel® Core™ i(5 or 7)+ processor.
- ²⁸ Intel® Turbo Boost technology requires a PC with a processor with Intel Turbo Boost capability. Intel Turbo Boost performance varies depending on hardware, software and overall system configuration. See www.intel.com/technology/turboboost for more information.
- ²⁹ HP Password Manager: requires Internet Explorer or Chrome™ or Firefox. Some websites and applications may not be supported. User may need to enable or allow the add-on / extension in the internet browser. HP Sure Start Gen 4: is available on HP ProDesk & ProOne products equipped with Intel® 8th generation processors.
- ³⁰ RAID configuration: is optional and does require a second hard drive.
- ³³ HP Sure Click is available on most HP PCs and supports Microsoft® Internet Explorer and Chromium™. Supported attachments include Microsoft Office (Word, Excel, PowerPoint) and PDF files in read only mode, when Microsoft Office or Adobe Acrobat are installed.
- ³⁴ HP ePrint Driver: Requires an Internet connection to HP web-enabled printer and HP ePrint account registration (for a list of eligible printers, supported documents and image types and other HP ePrint details, see www.hp.com/go/eprintcenter). Print times and connection speeds may vary.
- ³⁵ Configuration would be (1) 5.25" internal half-height drive bay or (2) 2.5" internal storage drive bays; (1) 3.5" internal storage drive bay; (1) 9.5 mm internal optical drive bay.
- ³⁶ HP Drive Lock is not supported on NVMe drives.

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