HP Desktop Mini: The Next-Generation in Business Desktop PCs

How HP desktop PCs with 4th generation Intel® Core™ processors put more performance on the desktop without taking up space

EXECUTIVE SUMMARY

With the ever increasing pace of business, streamlining of workloads and workflows, shrinking technology, network file storage, and the cloud, the desktop PC is evolving. No longer does every task require a power-centric, large, expandable PC chassis with massive hard drives. Performance, simplicity, versatility, space-saving, and power efficiency are the demands of today's business desktop PC. Yet, in the enterprise, security and manageability are still critical. With desktop virtualization just emerging, a powerful business PC is still where the majority of daily work gets done. HP's newest and smallest business desktop platform, the HP Desktop Mini, fits the bill without filling the space.

Built for enterprise-class performance, reliability, security, and manageability, the HP EliteDesk 800 G1 Desktop Mini will help get the day's work done, while reducing energy costs and enabling IT to easily keep it under supervision. Packed with integrated business-class performance, reliability, and security, the HP ProDesk 600 G1 Desktop Mini is crafted to save space and energy.

This paper looks at the new HP Desktop Mini PC features and capabilities designed for today's efficient business operations.

TABLE OF CONTENTS

WHERE THE WORK IS ALWAYS— AND NEVER—DONE

Desktops are still where people work—at home offices, in small/medium businesses, and the enterprise. And desktop PCs are still the workhorses of the average business. Yet the form factor and demands of yesterday's desktops, consuming multiple hundreds of watts of power, are fading away in favor of performance-driven and power-efficient platforms that do all that is needed for the daily worker. Using powerful, compact technology, smart design, and feature-rich software, HP offers the new HP Desktop Mini.

Out of Sight. Never Out of Mind.

Smaller than some desk phones, the HP EliteDesk* 800 G1 Desktop Mini and HP ProDesk* 600 G1 Desktop Mini fit almost anywhere and out of sight. But, with their multitasking performance, functional flexibility, and strong security, the HP Desktop Mini will never be out of mind.

A Powerful Combination for Desktop Productivity

The new HP Desktop Mini PCs combine the productivity and versatility of HP software, support for standard business productivity tools, like Microsoft Office,* and the performance of 4th generation Intel® Core™ processors[1] to create powerful desktop systems that offer performance, efficiency, and style.

- HP ProDesk 600 G1 Desktop Mini—available with 4th generation Intel Core processors.
- HP EliteDesk 800 G1 Desktop Mini—available with 4th generation Intel® Core™ vPro™ processors.
- Optional M.2 PCIe* solid state hard drive module,[2] internal 2.5-inch SSD of HDD, or dual-drive configurations for fast, effective storage solutions for any requirement.
- Integrated Wi-Fi.
- Comprehensive suite of HP business and IT management software.

The HP Desktop Mini combines features that fuel business productivity, enhanced technologies to protect data, and manageability options to help simplify IT's workload. All this makes these small, efficient PCs the next-generation desktop workhorse—from the small home office to medium-sized businesses and the enterprise.

BUILT ON INTEL® TECHNOLOGIES FOR BUSINESS PERFORMANCE, SECURITY, AND MANAGEABILITY

Providing the most advanced features and capabilities yet of Intel Core processors, the 4th generation Intel Core processors create a powerful foundation for these next-generation desktop PCs.

4th Generation Intel Core Processors: Better, More Responsive Performance

Intelligent power management with Intel® Turbo Boost 2.0[3] dynamically controls performance and power—for cores and graphics—boosting performance exactly where and when it is needed, and saving energy when it counts.

4th generation Intel Core processors support two to four cores and up to eight threads with Intel® Hyper-Threading Technology[4] (Intel® HT Technology) for true multitasking performance.

Accelerated Graphics

With the integration of social media into daily business relations and the demand for compelling presentations, more companies rely on video and high-end graphics. Intel® HD graphics, integrated in 4th generation Intel Core processors, offers better performance over previous generation Intel® graphics. Built-in visual technologies, like Intel® Quick Sync Video's hardware-enhanced video format conversion, accelerate converting videos and working with graphics to help get important messages and information seen sooner than later. Enhancements to 4th generation Intel Core processor graphics engines include the following:

- A much more powerful graphics engine than previous Intel® microarchitectures delivers ultimate 3D, video processing, and visual enhancements.
- New hardware-based media accelerators and added graphics execution units deliver superior performance for HD video content and 3D graphics.
- Support for DirectX 11.1, OpenGL 4.0, and OpenCL 1.2.

Multimonitor, Multitask

With today's workflows and workloads, a PC's usable display area is as important as desk space. With Intel HD graphics' multimonitor support and using the integrated VGA and DisplayPort* with Multi-Stream video outputs, the Desktop Mini can enable up to three independent displays right out of the box.[5,6] More usable space helps get things done faster, which can result in up to 35 percent more productivity.

Intel® vPro™ Technology: Hardware-Enhanced Protection for Platforms, Data, and Identities

With the sophistication of today's malware, more platforms, sensitive data, and user identities are at risk. Intel® vPro™ technology[7] integrates a suite of hardware-based technologies to help detect and stop threats as they try to take advantage of a vulnerability.

Intel® Platform Protection Technology[8]

This group of technologies helps protect the PC platform from malware attacks.

Trusted Platform Module[9] (TPM) and Secure Boot Support – Windows* 8 adds a new level of protection from boot to OS initialization, and 4th generation Intel Core vPro processors support booting securely across a wide range of platforms with multiple technologies.

- The HP EliteDesk 800 G1 Desktop Mini, with 4th generation Intel Core vPro processor, uses a Trusted Platform Module* (TPM), which supports Windows 8 secure boot and other attestation features.
- The HP ProDesk 600 G1 Desktop Mini, with 4th generation Intel Core processor, can use Boot Guard,[8] part of the Intel® Platform Protection Technology to support Windows 8 secure boot.

OS Guard[8] – The next generation of Intel® Execute Disable Bit,[8] OS Guard protects against escalation of privilege attacks, by preventing malicious code from executing out of data memory and application memory spaces. This protection helps guard against very sophisticated viruses and the damage they can do.

Intel® Identity Protection Technology[10,11]

Intel® Identity Protection Technology (Intel® IPT) is a suite of products offering built-in hardware-level security to protect against identity theft without the need for discreet tokens or smartcards. Intel IPT offers the security level of hardware devices with the ease of maintenance and fast response capabilities that software-based solutions provide.

Intel® Data Protection Technology[11]

This group of technologies helps protect against violation of data through theft and unwanted access.

Advanced Encryption Standard: New Instructions[11] – Encrypted data is the safest data. Advanced Encryption Standard – New Instructions accelerates encryption and decryption up to four times faster in applications optimized for AES-NI. This enables companies to use ubiquitous encryption throughout the enterprise across business clients based on 4th generation Intel Core vPro processors.

Secure Key[11] – True random numbers are the core of strong security keys. Numbers generated in software are at risk of discovery. Secure Key provides a very fast and clean source of random numbers through generation in hardware, out of sight of malware. Secure Key's autonomous, self-contained digital random number generator resides on the processor package.

Intel® Active Management Technology[12]

With built-in Intel® Active Management Technology (Intel® AMT), every business client based on a 4th generation Intel Core vPro processor maintains a high level of its situational awareness with BIOS protection, constant health monitoring, hardware and software inventories, and appropriate responses to any detected irregularities. Management and remediation capabilities are accessible through management console software, accelerating troubleshooting and reducing deskside visits.

Intel® Stable Image Platform Program[13]

As a member of the Intel® Stable Image Platform Program (Intel® SIPP), HP helps ensure the HP Desktop Mini will continue to serve the business for years to come. The Intel SIPP provides multi-year development and roadmap support for Intel components, so businesses gain a high Return on Investment (ROI) and low Total Cost of Ownership (TCO) on their infrastructure purchases.

HP SOFTWARE & ACCESSORIES— PERFORMANCE, PRODUCTIVITY, AND MANAGEABILITY TOOLS FOR BUSINESS

HP software and features bring the HP Desktop Mini to life with easy-to-use applications and productivity tools designed for business—from small home offices to the enterprise.

Practical and Productive

See it. Use it. – Enhance captured business documents and automatically trim, brighten, and orient them with HP PageLift.[14]

Share your connection wirelessly – In small businesses, colleagues can easily share an internet connection with up to five devices using HP Wireless Hotspot.[15] This can help colleagues get online and improve productivity.

Simple wireless printing – Eliminate the desktop printer and make better use of your workspace. HP ePrint makes wireless printing simple by eliminating the need for drivers.[16]

Incredible audio experience – Make the most of virtual conferencing through rich sound and video using DTS Studio Sound Audio software.[17]

Stay in touch – Simplify business conferences with Skype,* pre-configured on the HP ProDesk 600 Desktop Mini.[17,18]

Work without interruption – Keep productivity high and downtime low with HP BIOSphere firmware-level automation. The HP Desktop Mini has extra protection, thanks to automatic updates and security checks. Enjoy customization that allows your PC to evolve with your business.[19]

Safe and Secure

Keep it confidential – Keep sensitive information in safe hands. HP Trust Circles helps protect your data by ensuring that only assigned contacts can access critical files.[20]

Easy Deployment. Easier Serviceability.

Fast, easy setup – The clean, easily serviceable design, with integrated wireless antenna, allows flexible deployment options[2] to help optimize the workspace.

VESA versatility – Set up the HP Desktop Mini in almost any spot, or easily attach it to several optional peripheral devices using the integrated VESA mount.

Quick setup and take down – When securely storing PCs is a priority, the HP Quick Release Mounting Bracket[2] helps make mounting and unmounting from most flat surfaces a breeze.

It's all about location – The HP Desktop Mini Security Sleeve[2] enables mounting to most flat surfaces including under a desk or on a wall. Front and rear security covers help block access to system I/O ports, while still providing venting and cable access.

Space saving rack mount[2] – Rack and stack your PCs with the HP Desktop Mini Rack Mount Shelf.[2] The Rack Mount is an innovative solution, enabling asset centralization and space savings in enterprise environments.

Stand supreme – Select the best optional stand solution for your workspace. The optional HP Integrated Work Center Stand[2] fits most HP displays and is specially designed to allow easy access to the front ports of the HP Desktop Mini.

Incredibly Manageable and Reliable

Computing you can count on – The HP EliteDesk 800 G1 Desktop Mini is designed to undergo MIL-STD 810G tests.[21] HP has performed 115,000 hours of testing and end-to-end diagnostics for built-in confidence.

Simplified serviceability – A single thumb screw provides fast access to clearly identifiable and serviceable components.

Convenient control – Enjoy easy and simple integration into the IT environment and ongoing maintenance with HP Client Management Solutions,[22] such as optional LANDesk* software.[23]
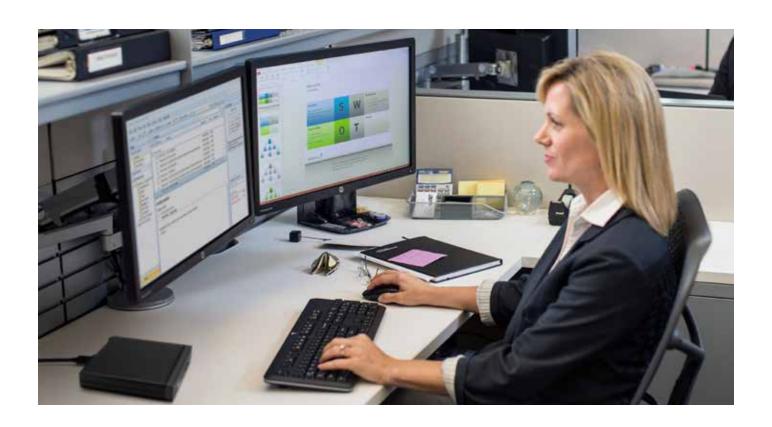
Smooth and steady – Help reduce the burden on IT with long life cycles and stable images and drivers, along with HP's business services and support programs.

Heavy security, exceptionally managed – A full portfolio of HP security and manageability solutions support IT efficiency to keep the HP Desktop Minis as productive as possible in the workplace.

Customized protection – HP BIOSphere boosts security and keeps mission-critical data and systems under lock and key with customizable authentication and BIOS-level passwords.[19]

Wipe it clean – HP Secure Erase[24] removes the contents of a hard drive for repurposing or reassignment.

Green with envy – The low energy consumption levels of the ENERGY STAR*-qualified and EPEAT* Gold[25]-certified HP Desktop Mini PC means it can support 24/7 operations without worry about power consumption. Consuming less than 8W at idle, the Desktop Mini can be always on and always updated without running up the utility bill.

NEXT-GENERATION TOOLS FOR TODAY'S BUSINESS

With HP software and business tools and powered by 4th generation Intel Core processors, the HP ProDesk 600 G1 Desktop Mini delivers the performance, efficiency, and style desired in today's business environments. The HP EliteDesk 800 G1 Desktop Mini, with 4th generation Intel Core vPro processors, provides the performance workers need and the security and manageability capabilities enterprise IT demands. HP Desktop Mini PCs put more productivity on the desktop without taking up space. Together, they offer next-generation technology solutions for today's business operations.

FOR MORE INFORMATION

Contact your HP representative or visit **www.hp.com**.

Contact your Intel representative or visit **www.intel.com**.

[1] Multi-Core is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. 64-bit computing on Intel® architecture requires a computer system with a processor, chipset, BIOS, operating system, device drivers, and applications enabled for Intel® 64 architecture. Processors will not operate (including 32-bit operation) without an Intel® 64 architecture-enabled BIOS. Performance will vary depending on your hardware and software configurations. Intel's numbering is not a measurement of higher performance.

[2] Sold separately or as an optional feature.

[3] Requires a system with Intel® Turbo Boost Technology. Intel Turbo Boost Technology and Intel Turbo Boost Technology 2.0 are only available on select Intel® processors. Consult your system manufacturer. Performance varies depending on hardware, software, and system configuration. For more information, visit http://www.intel.com/go/turbo.

[4] Available on select Intel® Core™ processors. Requires an Intel® HT Technology-enabled system. Consult your PC manufacturer. Performance will vary depending on the specific hardware and software used. For more information including details on which processors support HT Technology, visit http://www.intel.com/info/hyperthreading.

[5] "Observed Productivity, Efficiency and User Satisfaction when Using Multiple or Large Displays," Koala LLC Ergonomics Consulting, November 6, 2012.

[6] Support for multiple monitors requires displays that support DisplayPort with multi-stream that can be daisy chained together. Monitors and cables sold separately.

[7] Intel® vPro™ Technology is sophisticated and requires setup and activation. Availability of features and results will depend upon the setup and configuration of your hardware, software and IT environment. To learn more visit: http://www.intel.com/technology/vpro.

[8] No computer system can provide absolute security. Requires an enabled Intel® processor, enabled chipset, firmware, software and may require a subscription with a capable service provider (may not be available in all countries). Intel assumes no liability for lost or stolen data and/or systems or any other damages resulting thereof. Consult your Service Provider for availability and functionality. For more information, visit http://www.intel.com/go/anti-theft. Consult your system manufacturer and/or software vendor for more information.

[9] The original equipment manufacturer must provide TPM functionality, which requires a TPM-supported BIOS. TPM functionality must be initialized and may not be available in all countries.

[10] No computer system can provide absolute security. Requires an Intel® Identity Protection Technology-enabled system, including an enabled Intel® processor, enabled chipset, firmware, software, and Intel integrated graphics (in some cases) and participating website/service. Intel assumes no liability for lost or stolen data and/or systems or any resulting damages. For more information, visit http://ipt.intel.com/. Consult your system manufacturer and/or software vendor for more information.

[11] No computer system can provide absolute security. Requires an enabled Intel® processor and software optimized for use of the technology. Consult your system manufacturer and/or software vendor for more information.

[12] Requires activation and a system with a corporate network connection, an Intel® AMT-enabled chipset, network hardware and software. For notebooks, Intel AMT may be unavailable or limited over a host OS-based VPN, when connecting wirelessly, on battery power, sleeping, hibernating or powered off. Results dependent upon hardware, setup and configuration. For more information, visit http://www.intel.com/content/www/us/en/architecture-and-technology/intel-active-management-technology.html.

[13] Consult your PC manufacturer for availability of systems that meet Intel® SIPP guidelines. Intel SIPP is a client program only and does not apply to servers or Intel-based handhelds and/or handsets. For more information, visit Intel® Stable Image Platform Program (Intel® SIPP).

[14] Requires Microsoft Windows® 8.

[15] The wireless hotspot application requires an active internet connection and separately purchased data plan. While HP wireless hotspot is active, on-device applications will continue to work and will use the same data plan as the wireless hotspot. Wireless hotspot data usage may incur additional charges. Check with your service provider for plan details. Requires Windows 8.1 or HP Connection Manager for Windows 7.

[16] 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.hpconnected.com). Mobile devices require Internet connection and email capability. May require wireless access point. Separately purchased data plans or usage fees may apply. Print times and connection speeds may vary. Some HP LaserJet printers may require firmware upgrades.

[17] Internet access required.

[18] Webcam required for video conferencing.

[19] HP BIOSphere features may vary depending on the PC platform & configuration.

[20] HP Trust Circles Standard, when included, allows up to 5 Trust Circles with up to 5 contacts in each Trust Circle. Optional Trust Circles Professional required for unrestricted number of Trust Circles and members contacts. Trust Circles Reader is available to allow a contact to participate in an invited Trust Circle. Requires Windows.

[21] MIL-STD testing is pending and is not intended to demonstrate fitness for U.S. Department of Defense contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions.

[22] HP Client Management Solutions requires Windows.

[23] LANDesk* software is sold separately. Managed devices must be connected to the management server. Requires active LANdesk maintenance service. Wipe functionality performs a "Windows 8 Reset" and requires Windows 8. Lock performs a Windows "Lock Computer."

[24] For the methods outlined in the National Institute of Standards and Technology Special Publication 800-88.

[25] EPEAT® Gold registered where applicable. EPEAT registration varies by country. See www.epeat.net for registration status by country.