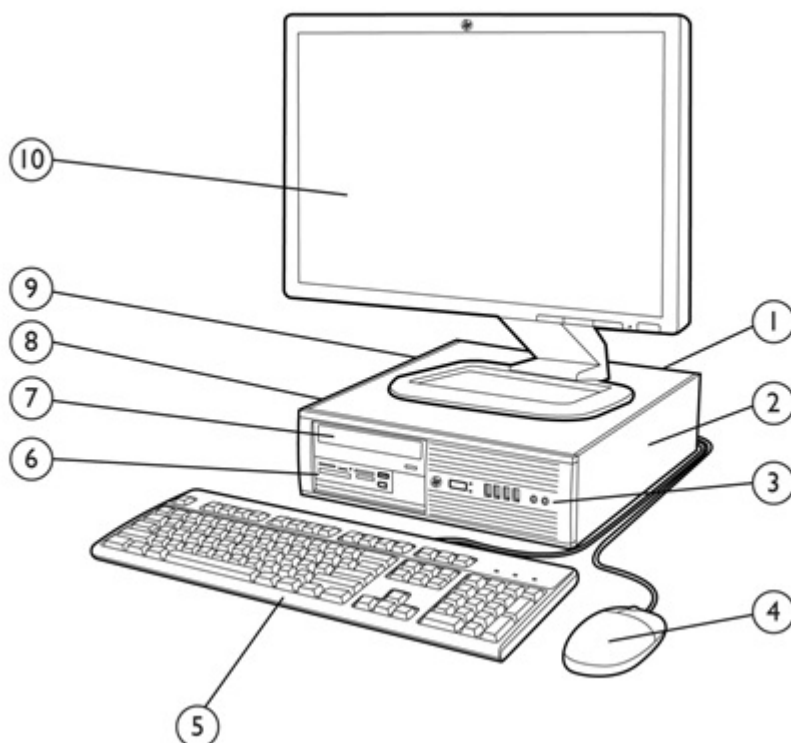


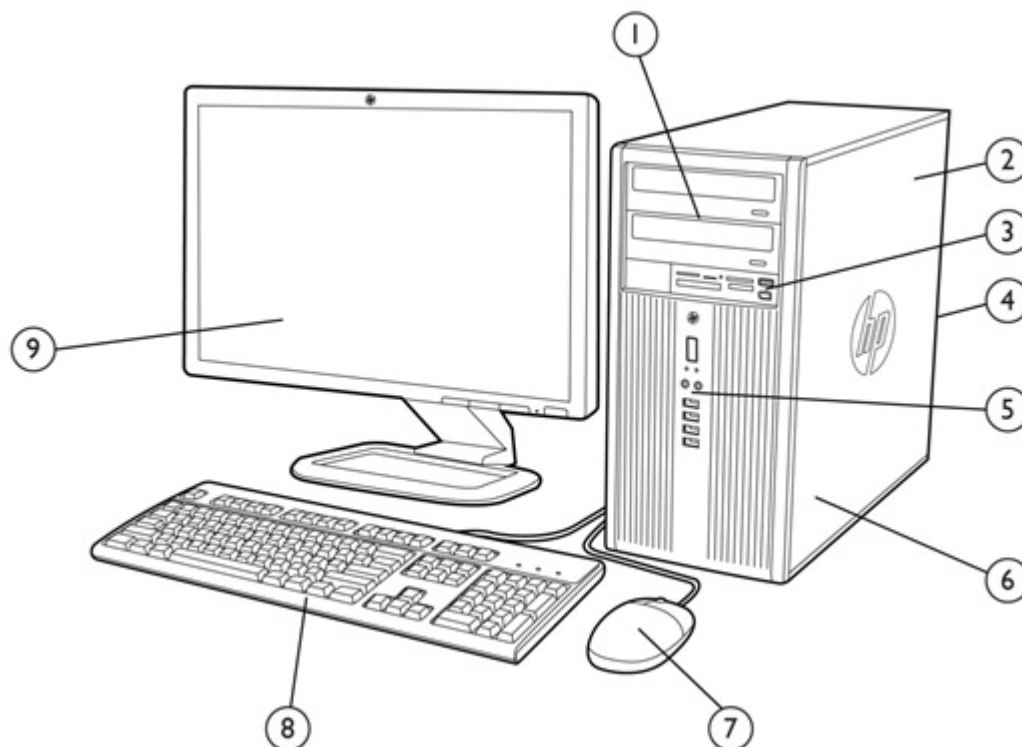
HP COMPAQ PRO 6300 SMALL FORM FACTOR BUSINESS PC



- 1 Rear I/O includes (4) USB 3.0 ports, (2) USB 2.0 ports, serial port, PS/2 mouse and keyboard ports, RJ-45 network interface, DisplayPort 1.1a and VGA video interfaces, and 3.5mm audio in/out jacks
- 2 Low-profile expansion slots include (1) PCI, (2) PCI Express x1 and (1) PCI Express x16 graphics
- 3 Front I/O includes (4) USB 2.0 ports, a headphone output and a microphone jack
- 4 HP Mouse
- 5 HP Keyboard
- 6 3.5" external drive bay supporting an optional media card reader or a secondary data drive
- 7 5.25" external drive bay supporting an optical disk drive
- 8 3.5" internal drive bay supporting primary data drive
- 9 240W standard efficiency or 90% high efficiency power supply
- 10 HP Monitor (sold separately)

Overview

HP COMPAQ PRO 6300 MICROTOWER BUSINESS PC



- 1 (2) 5.25" external drive bays supporting optical disk drives or removable hard disk drives
(2) 3.5" internal drive bays supporting data drives
- 2 320W standard efficiency or 90% high efficiency power supply
- 3 3.5" external drive bay supporting the optional HP Media Card Reader
- 4 Rear I/O includes (4) USB 3.0 ports, (2) USB 2.0 ports, serial port, PS/2 mouse and keyboard ports, RJ-45 network interface, DisplayPort 1.1a and VGA video interfaces, and 3.5mm audio in/out jacks
- 5 Front I/O includes (4) USB 2.0 ports, a headphone output and a microphone jack
- 6 Full-height expansion slots include (1) PCI, (2) PCI Express x1 and (1) PCI Express x16 graphics
- 7 HP Mouse
- 8 HP Keyboard
- 9 HP Monitor (sold separately)

Overview

At A Glance

- Choice of two professional chassis form factors: Small Form Factor and Microtower.
- PC chassis and all internal components and modules are 100% free of brominated flame retardants (BFRs) and Polyvinyl Chloride (PVC).
- UEFI BIOS developed and engineered by HP for better security, manageability and software image stability
- Intel Q75 Express chipset supporting Intel 2nd and 3rd generation Core processors featuring Intel HD Graphics
- Intel 82579LM GbE integrated network connection
- DDR3 Synchronous Dynamic Random Access Memory (SDRAM)
- Dual independent monitor support via VGA and digital DisplayPort 1.1a video interfaces
- Standard efficiency or 90% high efficiency energy saving power supplies available
- ENERGY STAR® qualified models certified EPEAT® Gold
- Guaranteed lengthy purchase lifecycles and image stability
- Software image fully compatible across all models and form factors
- Created using industry leading Design for Environment standards
- Selected configurations with global availability easily set up and ordered through HP.com Business to Business portals (<http://h10019.www1.hp.com/business-site/index.html>)
- Tailored HP Factory Express deployment and lifecycle services available (<http://h71028.www7.hp.com/enterprise/cache/97688-0-0-225-121.aspx>)
- Protected by HP Services, including standard warranties up to 5-5-5 (terms and conditions vary by country; certain restrictions and exclusions apply)
- Tool-less serviceability features for easier upgrades and repairs

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

OPERATING SYSTEMS

Preinstalled

Windows 8 Pro (64-bit)*
Windows 8 (64-bit)*
Windows® 7 Ultimate (32-bit)**
Windows® 7 Ultimate (64-bit)**
Windows® 7 Professional (32-bit)**
Windows® 7 Professional (64-bit)**
Windows® 7 Professional (32-bit) (available through downgrade rights from Windows 8 Pro)***
Windows® 7 Professional (64-bit) (available through downgrade rights from Windows 8 Pro)***
Windows® 7 Home Premium (32-bit)**
Windows® 7 Home Premium (64-bit)**
Windows® 7 Home Basic (32-bit)**

FreeDOS 2.0

Novell SUSE Linux Enterprise Desktop 11

*Not all features are available in all editions of Windows 8. Systems may require upgraded and/or separately purchased hardware, drivers and/or software to take full advantage of Windows 8 functionality. See <http://www.microsoft.com>.

**Not all features are available in all editions of Windows 7. This system may require upgraded and/or separately purchased hardware to take full advantage of Windows 7 functionality. See <http://www.microsoft.com/windows/windows-7/> for details.

***This system is preinstalled with Windows® 7 Pro software and also comes with a license and media for Windows 8 Pro software. You may only use one version of the Windows software at a time. Switching between versions will require you to uninstall one version and install the other version. You must back up all data (files, photos, etc.) before uninstalling and installing operating systems to avoid loss of your data.

CHIPSET

Intel® Q75 Express

INTEL® STANDARD MANAGEABILITY

Includes DASH 1.0/1.1 compliance plus:

- System Defense
- Agent Presence
- SOL/IDE Redirection
- CISCO NAC/SDN support
- ME Wake on LAN
- Host Based Configuration
- ME Firmware Rollback
- IPv6 Support

DASH 1.0/1.1 compliance:

- Boot Control
- HW Inventory
- SW Inventory
- Power State Management
- HW Alerting

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

PROCESSOR

Intel® 3rd Generation Core™ i7 Processors

Intel® Core™ i7-3770 Processor

Up to 3.9 GHz Max. Turbo Frequency (3.4 GHz base frequency)

8 MB cache, 4 cores, 8 threads

Intel HD Graphics 4000

Supports DDR3 memory up to 1600 MT/s data rate

Supports Intel's Stable Image Platform Program (SIPP)

Intel® 3rd Generation Core™ i5 Processors

Intel® Core™ i5-3570 Processor

Up to 3.8 GHz Max. Turbo Frequency (3.4 GHz base frequency)

6 MB cache, 4 cores, 4 threads

Intel HD Graphics 2500

Supports DDR3 memory up to 1600 MT/s data rate

Supports Intel's Stable Image Platform Program (SIPP)

Intel® Core™ i5-3470 Processor

Up to 3.6 GHz Max. Turbo Frequency (3.2 GHz base frequency)

6 MB cache, 4 cores, 4 threads

Intel HD Graphics 2500

Supports DDR3 memory up to 1600 MT/s data rate

Supports Intel's Stable Image Platform Program (SIPP)

Intel® 2nd Generation Core™ i3 Processors

Intel® Core™ i3-2130 Processor

3.4 GHz base frequency, 3 MB cache, 2 cores, 4 threads

Intel HD Graphics 2000

Supports DDR3 memory up to 1333 MT/s data rate

Intel® Core™ i3-2120 Processor

3.3 GHz base frequency, 3 MB cache, 2 cores, 4 threads

Intel HD Graphics 2000

Supports DDR3 memory up to 1333 MT/s data rate

Intel® Pentium® Processors

Intel® Pentium® G870 Processor

3.1 GHz base frequency, 3 MB cache, 2 cores, 2 threads

Intel HD Graphics

Supports DDR3 memory up to 1333 MT/s data rate

Intel® Pentium® G860 Processor

3.0 GHz base frequency, 3 MB cache, 2 cores, 2 threads

Intel HD Graphics

Supports DDR3 memory up to 1333 MT/s data rate

Intel® Pentium® G640 Processor

2.8 GHz base frequency, 3 MB cache, 2 cores, 2 threads

Intel HD Graphics

Supports DDR3 memory up to 1066 MT/s data rate

Intel® Celeron® Processors

Intel® Celeron® G550 Processor

2.6 GHz base frequency, 2 MB cache, 2 cores, 2 threads

Intel HD Graphics

Supports DDR3 memory up to 1066 MT/s data rate

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

Intel® Celeron® G540 Processor

2.5 GHz base frequency, 2 MB cache, 2 cores, 2 threads

Intel HD Graphics

Supports DDR3 memory up to 1066 MT/s data rate

Intel® Celeron® G460 Processor

1.70 GHz base frequency, 1.5 MB cache, 1 core, 1 thread

Intel HD Graphics

Supports DDR3 memory up to 1066 MT/s data rate

GRAPHICS

Integrated on all models (depends on processor)

Intel HD Graphics: Basic, 2000, 2500, 4000

Optional Discrete Graphics Solutions

AMD Radeon HD 6350 (512 MB) PCIe x16

(includes a DMS-59 to Dual VGA Y Cable)

AMD Radeon HD7450 (1 GB) PCIe x16

(includes a DVI to VGA adapter cable)

NVIDIA NVS 300 (512 MB) PCIe x16

(Includes a DMS-59 to Dual VGA Y Cable)

NVIDIA NVS 310 (512 MB) PCIe x16

NVIDIA GeForce GT 630 PCIe x 16

Adapters and Cables

DisplayPort to DisplayPort Cable

DisplayPort to DVI-D Adapter

DisplayPort to HDMI Adapter

DisplayPort to VGA Adapter

STORAGE

SATA Hard Drive

250 GB, 7200 rpm, SATA 6.0 Gb/s, SMART IV, 3.5"

500 GB, 7200 rpm, SATA 6.0 Gb/s, SMART IV, 3.5"

1 TB, 7200 rpm, SATA 6.0 Gb/s, SMART IV, 3.5"

SATA Self-encrypting Drive

320 GB, 7200 rpm, SATA, 3.5"

SATA Self-encrypting Solid State Drive

256 GB, SATA, 3.5"

SATA Solid State Drive

120 GB, SATA (with 3.5" adapter)

128 GB, SATA (with 3.5" adapter)

Optical Disc Drive

DVD-ROM

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

SuperMulti DVD Writer

Blu-ray Writer

Media Card Reader

22-in-1

MEMORY

Type

DDR3 non-ECC; up to 1600 MT/s

Maximum

32 GB

of Slots

4

NOTE: For systems configured with more than 3 GB of memory and a 32-bit operating system, all memory may not be available due to system resource requirements. Addressing memory above 4 GB requires a 64-bit operating system.

Memory modules support data transfer rates up to 1600 MT/s; actual data rate is determined by the system's configured processor. See processor specifications for supported memory data rate.

NETWORKING/COMMUNICATIONS

Ethernet (RJ-45)

Intel 82579LM Gigabit Network Connection (standard)

Intel Pro Gigabit CT Desktop PCIe x1 Network Card (optional)

Wireless

802.11b/g/n PCIe x1 (optional)

AUDIO/MULTIMEDIA

High Definition Audio with Realtek ALC221 codec (all ports are stereo)

Microphone* and headphone front ports (3.5mm)

Line-out and Line-In rear Ports* (3.5mm)

Multi-streaming capable*

Internal Speaker (standard)

Thin USB power speakers

USB HD 720P Business Webcam

Business Headset

* The front microphone port is re-taskable as a Line-in, Microphone-in or Headphone-out port. Rear audio input ports are re-taskable as a Line-in or Microphone-in port. External speakers must be powered externally. Multi-streaming can be enabled in the Realtek control panel to allow independent audio streams to be sent to/from the front and rear jacks. This allows for different audio applications to use separate audio ports on the system. For example, the front jacks could be used with a headset for a communications application while the rear jacks are being used with external speakers and a multimedia application.

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

KEYBOARDS AND POINTING DEVICES

Keyboard

PS/2 Keyboard

USB Keyboard

USB Smart Card (CCID) Keyboard

USB and PS/2 Washable Keyboard

Wireless Keyboard and Mouse Combo

Mice

PS/2 Optical Mouse

USB Optical Mouse

USB Laser Mouse

USB and PS/2 Washable Mouse

HP BIOS

Key features of the HP BIOS include:

- Deployment and manageability – HP BIOS provides several technologies that help integrate the HP Compaq 6300 Pro Series PC into the enterprise, such as PXE, remote configuration, remote control, and F10 Setup support for 12 languages.
- Stability – HP BIOS supports the HP stable product roadmap by releasing only critical BIOS changes to the factory and advanced change notification.
- Supports UEFI specification 2.1
- Thermal and power management – The HP BIOS provides and enables thermal and power management technologies so component temperatures are managed for high reliability and to assist in operating the HP Business Desktop computer in any enterprise environment.
- Acoustic performance – Industry leading acoustic emissions across the range of operating conditions.
- Serviceability – HP BIOS provides diagnostic and detailed service information.
- Upgrades and recovery – HP BIOS provides numerous ways to upgrade HP Business Desktop computers, including BIOS updates from within DOS (DOSFlash), BIOS updates from within Windows (HPQFlash), HP Client Manager, and fail-safe recovery. In addition, the HP Business Desktop BIOS Utilities tool enables replicated BIOS setup throughout the Enterprise; it is available from within the BIOS software and from the support website.
- HP BIOS uses PKI signing of the BIOS for trusted BIOS upgrades and recovery.

Additional HP BIOS Features

- Power-On password – Helps prevent an unauthorized user from powering on the system.
- Administrator password – Also known as the setup password, this helps prevent unauthorized changes to the system configuration. If the administrator password is not known, the BIOS version cannot be changed and changes cannot be made to BIOS settings using F10 setup or under the OS.
- Advanced Configuration and Power Interface (ACPI) – Represents a significant innovation in power and configuration management, allowing operating systems and applications to manage power based on activity and usage. HP Compaq business PCs use ACPI to provide power conservation features.
- S5 Max Power Savings setting supports EU Lot6 requirement and allows the computer to power down below 1W in S5 (when turned off). When S5 Max Power Savings feature is enabled power to slots is turned off along with WOL functionality.

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

SECURITY

- Trusted Platform Module (TPM) 1.2
- SATA port disablement (via BIOS)
- Drive lock
- Serial, parallel, USB enable/disable (via BIOS)
- Optional USB Port Disable at factory (user configurable via BIOS)
- Removable media write/boot control
- Power-On password (via BIOS)
- Setup password (via BIOS)
- HP Solenoid Hood Lock / Sensor
- Support for chassis padlocks and cable lock devices

POWER

	SFF	MT
Power Supply		
240 W, active PFC, 90% high efficiency	X	
240 W active PFC, standard efficiency	X	
320 W, active PFC, 90% high efficiency		X
320 W active PFC, standard efficiency		X

ENVIRONMENTAL

- Energy Star® qualified models available
- EPEAT® registered where applicable/supported. See www.epeat.net for registration status by country.
- BFR/PVC free (chassis, all internal components and modules)

PORTS

I/O Ports – Standard

- 4 – USB 3.0 (rear)
- 4 – USB 2.0 (front)
- 2 – USB 2.0 (rear)
- 1 – Serial RS-232 compatible
- 2 – PS/2 (color-coded support for keyboard (purple) and mouse (green))
- 1 – VGA
- 1 – DisplayPort 1.1
- 1 – Microphone and Headphone (front)
- 1 – Audio-in and Audio-out (rear)
- 1 – RJ-45 (accesses the integrated network interface controller)

I/O Ports – Optional

- 1 – Serial RS-232 compatible
- 1 – Parallel
- 1 – eSATA



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

BAYS

	SFF	MT
3.5" external <i>(For Media Card Reader unless used for secondary data drive)</i>	1 each	1 each
5.25" external	1 each 8.19" depth	2 each 8.19" depth
3.5" internal HDD	1 each	2 each

SLOTS

	SFF	MT
PCI (5 volt)	1 each 2.5" low profile 6.6" length 25W max. power	1 each 4.2" full height 6.6" length 25W max. power
PCI Express x1 (2.0)	2 each 2.5" low profile 6.6" length 10W max. power	2 each 4.2" full height 6.6" length 10W max. power
PCI Express x16 (3.0 – Primary)	1 each 2.5" low profile 6.6" length 25W max. power	1 each 4.2" full height 6.6" length 75W max. power

FORM FACTORS AVAILABLE

- Small Form Factor
- Microtower

SERVICE AND SUPPORT

3 year standard on-site warranty and service¹: This limited warranty and service offering delivers parts, labor and on-site repair. Optional terms available up to 5 years. Response time is next business day² and includes free telephone support³ 24 x 7. Global coverage² ensures any product purchased in one country and transferred to another non-restricted country will remain fully covered under the original warranty and service offering. Some countries/regions do not offer one year onsite and labor.

OPERATING SYSTEMS

Preinstalled

Windows 8 Pro (64-bit)*
 Windows 8 (64-bit)*
 Windows® 7 Ultimate (32-bit)**
 Windows® 7 Ultimate (64-bit)**
 Windows® 7 Professional (32-bit)**
 Windows® 7 Professional (64-bit)**
 Windows® 7 Professional (32-bit) (available through downgrade rights from Windows 8 Pro)***
 Windows® 7 Professional (64-bit) (available through downgrade rights from Windows 8 Pro)***
 Windows® 7 Home Premium (32-bit)**
 Windows® 7 Home Premium (64-bit)**
 Windows® 7 Home Basic (32-bit)**

FreeDOS 2.0
 Novell SUSE Linux Enterprise Desktop 11

For all Preinstalled operating systems HP provides Microsoft WHQL certified (where applicable) drivers on www.hp.com at the time of product announcement.

Supported

Windows 8 Enterprise (32 bit or 64-bit)*
 Windows 8 Pro (32-bit)*
 Windows 8 (32-bit)*
 Windows® 7 Enterprise (32-bit or 64-bit)**

For all Supported operating systems HP performs testing of the OS, and makes available all HP value add software (OS dependent). Certified drivers are made available on www.hp.com within 30 days of product announcement.

Limited Support

Windows® XP Professional (32-bit)

For all Limited Support operating systems HP will make available on www.hp.com certified drivers for major subsystems, if not provided by the operating system, within 30 days of product announcement.

HP performs functional testing on representative configurations. Some newer technologies may not be supported.

HP value added software and 3rd party applications (i.e. DVD players) are not supported.

Certified

Novell SUSE Linux Enterprise Desktop 11

For all Certified operating systems HP will submit hardware to the operating system vendor for testing and certification. All drivers would be obtained from the operating system vendor, not supplied by HP. Certification will be posted by the operating system vendor.

Test & Document

Windows® Vista Enterprise (32-bit or 64-bit)
 Windows® Vista Professional (32-bit or 64-bit)

For all Test & Document operating systems HP will perform functional testing of the operating system on the HP business PC platform. Any issues found will be documented in an Engineering Advisory and/or Service Advisory and posted to www.hp.com. HP will not develop or qualify any drivers or perform any integration testing.

*Not all features are available in all editions of Windows 8. Systems may require upgraded and/or separately purchased hardware, drivers and/or software to take full advantage of Windows 8 functionality. See <http://www.microsoft.com>.

**Not all features are available in all editions of Windows 7. This system may require upgraded and/or separately purchased hardware to take full advantage of Windows 7 functionality. See <http://www.microsoft.com/windows/windows-7/> for details.

***This system is preinstalled with Windows® 7 Pro software and also comes with a license and media for Windows 8 Pro software. You may only use one version of the Windows software at a time. Switching between versions will require you to uninstall one version and install the other version. You must back up all data (files, photos, etc.) before uninstalling and installing operating systems to avoid loss of your data.

Technical Specifications – Operating Systems, Software and eDocumentation

The following features are not supported by Novell SUSE Linux Enterprise Desktop:

- Intel Gigabit CT Desktop NIC
- Broadcom NetXtreme Gigabit Ethernet Plus
- HP 22-in-1 Media Card Reader
- HP Client Security
- HP Blu-ray Writer playback of commercial movies
- DisplayPort video interface
- HP 2nd serial port adapter
- Power Management features
- Systems configured with Linux do not qualify for ENERGY STAR®

SOFTWARE

Included	Windows 8	Windows 7
Security	HP Client Security <ul style="list-style-type: none"> • Credential Manager • Password Manager • One Step Logon • Face Recognition (with optional WebCam) • SpareKey • Device Access Manager w/JITA • Drive Encryption* Computrace (user optional)** Windows Defender	HP Client Security <ul style="list-style-type: none"> • Credential Manager • Password Manager • One Step Logon • Face Recognition (with optional WebCam) • SpareKey • DigitalPass • Device Access Manager w/ JITA • Drive Encryption (McAfee) • File Sanitizer • Privacy Manager Computrace (user optional)** Microsoft Security Essentials
Windows Applications	Internet Explorer Store Desktop Photos Mail Games Calendar People (contacts) Messaging SkyDrive Music Video Camera News Sports Weather Maps Finance Bing (Search)	Bing (Search)
Productivity	Buy Microsoft Office to activate Office Software on this PC	MS Office Professional 2010 SP1 MS Office Home and Business 2010 SP1 MS Office Starter 2010 HP Power Assistant
HP Additions	HP Registration	Corel WinDVD 10.0 SD (DVD) Player*****



Technical Specifications – Operating Systems, Software and eDocumentation

	HP Getting Started with Windows 8 HP ePrint*** HP Support Assistant CyberLink Media Suite Windows 8 CyberLink Media Suite CyberLink YouCam**** CyberLink YouCam Windows 8**** CyberLink Webcam Sharing Manager**** CyberLink PowerDVD SD, BD CyberLink Power2Go CyberLink Photo Director CyberLink Power Director HP Mobile Connect Evernote Skype	Corel WinDVD 10.0 BD (Blu-Ray) Player***** Roxio MyDVD Business 2010***** Roxio MyDVD Business 2010 HD***** HP Marketplace HP Wallpaper SRS Premium Sound
Desktop Applications	HP Wireless Hotspot HP Support Assistant PDF Complete, corporate edition	PDF Complete Corporate Edition WinZip Basic Adobe Flash Player
HP Documentation (eDOCS)	HP eHelp Documentation HP Hardware Reference Guide HP Quick Setup & Getting Started Guide HP Regulatory and Safety Information HP Safety and Comfort Guide HP Warranty Documentation	HP eHelp Documentation HP Hardware Reference Guide HP Quick Setup & Getting Started Guide HP Regulatory and Safety Information HP Safety and Comfort Guide HP Warranty Documentation
HP Support Applications	HP EUDI Support Environment HP Help and Support HP Setup v9.0 HP Support Assistant	HP EUDI Support Environment HP Help and Support HP Recovery Manager HP Setup v9.0 HP Support Assistant

*Available via download

** Computrace agent is shipped turned off, and must be activated by customers when they purchase a subscription. Subscriptions can be purchased for terms ranging from one to five years. Service is limited, check with Absolute for availability outside the U.S.

*** 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). Requires optional broadband module. Broadband use requires separately purchased service contract. Check with service provider for coverage and availability in your area. Separately purchased data plans or usage fees may apply. Print times and connection speeds may vary.

****Preinstalled on models with webcam

*****Optional

Technical Specifications - Graphics

Intel HD Graphics

VGA Controller	Integrated
DisplayPort	1.1a; integrated, multimode capable; supports HDCP and audio over DisplayPort
Bus Type	Intel® Flexible Display Interface (Intel® FDI) - a proprietary link for carrying display traffic from the Processor Graphics controller to the PCH display I/Os.
Memory	Intel graphics do not have dedicated memory but utilizes some of the computer's system memory. The amount of memory used for graphics depending on the amount of system memory installed, BIOS settings, operating system, and system load. 32 MB is pre-allocated for graphics use at system boot time. Additional memory can be allocated at boot time by the BIOS for PAVP (Protected Audio Video Playback) support for playback of protected video content.

Additional memory is allocated for graphics as needed using Intel's Dynamic Video Memory Technology (DVMT), to provide an optimal balance between graphics and system memory use.

Maximum Graphics Memory	Microsoft Windows XP	Microsoft Windows 7
	Up to 1GB	Up to 1.7GB

Note: the actual amount of maximum graphics memory can be less than the amounts listed above depending upon your computer's configuration.

Multi-display Support	Integrated dual independent monitor support facilitated via one VGA port and one DisplayPort integrated on the back plane of the system board and presented as part of the rear I/O set of interfaces. Support for DVI, HDMI, dual link DVI or second VGA monitor provided by optional HP DisplayPort adapters (see complete listing of available optional adapters elsewhere in this QuickSpec).
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The system can support greater than two monitors with the addition of an optional discrete graphics card. Both integrated graphics and discrete graphics can be utilized simultaneously.

HW Video Decode	AVC/VC1/MPEG2/JPEG/MJPEG/PAVP
------------------------	-------------------------------

Maximum Color Depth	32 bits/pixel
----------------------------	---------------

Graphics/Video API Support	<u>3rd Generation Core processors:</u>
-----------------------------------	---

- The Processor Graphics contains a refresh of the seventh generation graphics core enabling substantial gains in performance and lower power consumption. Up to 16 EU support.
- Next Generation Intel Clear Video Technology HD Support is a collection of video playback and enhancement features that improve the end user's viewing experience
 - Encode/transcode HD content
 - Playback of high definition content including Blu-ray Disc
 - Superior image quality with sharper, more colorful images
 - Playback of Blu-ray disc S3D content using HDMI (V.1.4 with 3D)
- DirectX Video Acceleration (DXVA) support for accelerating video processing
 - Full AVC/VC1/MPEG2 HW Decode
- Advanced Scheduler 2.0, 1.0, XPDM support
- Windows 7, Windows XP, OSX, Linux OS Support
- DirectX 11, DirectX 10.1, DirectX 10, DirectX 9 support
- OpenGL 3.3 support

2nd Generation Core processors:

- The Processor Graphics contains a refresh of the sixth generation graphics core enabling substantial gains in performance and lower power consumption.
- Next Generation Intel Clear Video Technology HD support is a collection of video playback and enhancement features that improve the end user's viewing experience.
 - Encode/transcode HD content
 - Playback of high definition content including Blu-ray Disc
 - Superior image quality with sharper, more colorful images

Technical Specifications - Graphics

- Playback of Blu-ray disc S3D content using HDMI (V.1.4 with 3D)
- DirectX Video Acceleration (DXVA) support for accelerating video processing
 - Full AVC/VC1/MPEG2 HW Decode
- Advanced Scheduler 2.0, 1.0, XPDM support
- Windows 7, XP, Windows Vista, OSX, Linux OS Support
- DirectX 10.1, DirectX 10, DirectX 9 support
- OpenGL 3.0 support

Supported Display Resolutions and Refresh Rates

NOTE: other resolutions may be available but are not recommended as they may not have been tested and qualified by HP

Resolution	Analog	Digital
640x480	85	60
800x600	85	60
1024x768	85	60
1280x720	85	60
1280x1024	85	60
1440x900	75	60
1600x1200	85	60
1680x1050	75	60
1920x1080	85	60-R
1920x1200	85	60-R
1920x1440	85	N/A
2048x1536	75	N/A
2560x1600	N/A	60*

* Only supported when using a DisplayPort connection
Note: Other resolutions may be available but are not recommended as the may not have been tested and qualified by HP
Note: 60-R denotes reduced blanking timings are used on single-link DVI connections and may be used with other digital connections

AMD Radeon HD 6350 Graphics Card

Introduction
The AMD Radeon HD 6350 DH PCIe x16 Graphics Card provides a low profile, PCI Express x16 graphics add-in card solution based on the AMD Radeon™ HD 6350 GPU. This card supports dual display video output through its single DMS-59 connector using a DMS-50 adapter cable.

An ideal solution for desktop PC customers seeking stable 2D and advanced 3D graphics performance, the AMD Radeon HD 6350 DH PCIe x16 Graphics Card is an excellent choice for small business users engaging in Web conferencing or video or photo editing, while improving your everyday business PC experience with better graphics and excellent visual display quality.

NOTE: Discrete graphics adapters can also access and use shared system memory, aka non-local video memory, through the PCI Express bus. Because system memory is accessed across the system bus, accessing it is much slower than accessing local memory.

Discrete graphics adapters generally share a portion of system memory with the CPU. Typically, these adapters do not ask for dedicated use of system memory for graphics, thus leaving more resources available for the rest of the system.

Key Benefits

- 512 MB of DDR3 dedicated on-board graphics frame buffer memory
- AMD Radeon™ HD 6350 GPU
- Conforms to full PCI Express 2.0A specification for low profile form factor (x16 lanes native PCI Express implementation)
- Includes a DMS-59 to Dual VGA Y Cable
- HDCP supported on DVI outputs (DVI Requires optional kit DL139A)

Technical Specifications - Graphics

- DirectX 11 support in hardware for optimal performance in DX11 applications.
- AMD Avivo technology for improved image and video playback.
- OpenGL 4.0 support in hardware for optimal performance with OpenGL applications

NOTE: The AMD Radeon HD 6350 PCIe x16 Graphics Card does not support Dual-link DVI capable monitors.

Form Factor	PCI Express x16 (generation 2.0)
	Low Profile, half length, 2.3" x 6.6"
	Full height bracket utilized when configured to MT
Graphics Controller	AMD HD 6350 GPU
Output Connector	Single DMS-59 connector
	Supports dual analog displays with included DMS-59 to dual VGA Y cable.
	Also supports dual digital displays with an optional DMS-59 to dual DVI cable.
Core Clock	650MHz
Memory Clock	800MHz
Memory Frame Buffer	512MB, DDR3, 64-bit wide
Bus Type	PCI Express x16, Generation 2.0
Max. Vertical Refresh	85Hz
Display Support	Integrated 400MHz RAMDAC
Display Max. Resolution	Digital 1900 x 1200
	Analog 2048 x 1536
Max. Power Consumption	19.9W
	HDCP supported on DVI output using optional DMS-59 to dual DVI cable.
Supported Graphics APIs	DirectX 11 support in hardware.
	OpenGL 4.0 support in hardware.

Display Resolutions and Refresh Rates

NOTE: other resolutions may be available but are not recommended as they may not have been tested and qualified by HP

Resolution	Maximum Refresh Rate (Hz)	
	Analog	Digital
640 x 480	85	60
800 x 600	85	60
1024 x 768	85	60
1280 x 720	85	60
1280 x 1024	85	60
1440 x 900	75	60
1600 x 1200	85	60
1680 x 1050	75	60
1920 x 1080	85	60-R
1920 x 1200	85	60-R
1920 x 1440	85	N/A
2048 x 1536	75	N/A
2560 x 1600	N/A	N/A

Note: 60-R denotes reduced blanking timings are used on single link DVI connections and may be sued with other digital connections.

AMD Radeon HD 7450 Graphics Card

Introduction
The AMD Radeon HD 7450 DP (1GB) PCIe x16 Graphics Card provides a low profile, PCI Express x16 graphics add-in card solution based on the AMD Radeon™ HD 7450 Graphics Processor. This card supports dual displays with its DisplayPort and dual link (DL) DVI connectors.

Technical Specifications - Graphics

An ideal solution for desktop PC customers seeking stable 2D and advanced 3D graphics performance, the AMD Radeon HD 7450 DP (1GB) PCIe x16 Graphics Card is an excellent choice for small business users engaging in Web conferencing or video or photo editing, while improving the everyday business PC experience with better graphics and excellent visual display quality.

The AMD Radeon HD 7450 DP (1GB) PCIe x16 Graphics Cards delivers PCI Express (PCIe) features including:

- Full 16 lane PCIe bus support with peak bandwidth support
- High resolution monitor support with the dual-link DVI port
- Multimode DisplayPort connector for current and future display technology support

NOTE: Discrete graphics adapters can also access and use shared system memory, aka non-local video memory, through the PCI Express bus. Because system memory is accessed across the system bus, accessing it is much slower than accessing local memory.

Discrete graphics adapters generally share a portion of system memory with the CPU. Typically, these adapters do not ask for dedicated use of system memory for graphics, thus leaving more resources available for the rest of the system.

Key Benefits

- 1GB of DDR3 dedicated on-board graphics frame buffer memory
- Featuring the AMD Radeon™ HD 7450 Graphics Processing Unit
- Conforms to full PCI Express 2.0A specification for low profile form factor (x16 lanes native PCI Express implementation)
- Provides dual-link (DL) DVI-I and DisplayPort output ports. A DVI-to-VGA adapter cable included
- DisplayPort connector supports multimode technology to support connection to DVI-D, VGA and HDMI monitors with optional adapters in kits [NR078AA](#), [FH973AT](#), [BP937AA](#), [AS615AA](#).

For a DisplayPort to DisplayPort connection use the optional DisplayPort Cable Kit VN567AA

- Supports audio with video through the DisplayPort connector
- DisplayPort 1.2 support provided in a future driver update
- HDCP supported on DisplayPort and DVI output
- DirectX 11 support in hardware for optimal performance in DX11 applications.
- ATI Avivo technology for improved image and video playback.
- OpenGL 4.0 support in hardware for optimal performance with OpenGL applications
- Thermally controlled fan for quiet operation.
- BFR/PVC free construction

Form Factor	PCI Express x16 (generation 2.0) Low Profile, half length, 2.3" x 6.6" Full height bracket utilized when configured to MT
Graphics Controller	AMD HD 7450 GPU (based on AMD Radeon HD 6000 series technology)
Output Connector	Dual-link (DL) DVI-I and DisplayPort output ports
Core Clock	625MHz
Memory Clock	800MHz
Memory Frame Buffer	1GB, DDR3, 64-bit wide
Bus Type	PCI Express x16, Generation 2.0
Max. Vertical Refresh	85Hz
Display Support	Integrated 400MHz RAMDAC
Display Max. Resolution	Digital 2560 x 1600 Analog 2048 x 1536
Max. Power Consumption	19.9W
Supported Graphics APIs	DirectX 11 support in hardware. OpenGL 4.0 support in hardware.

Display Resolutions and Refresh Rates

NOTE: other resolutions may be available but are not recommended as they may not have been tested and qualified by HP

Technical Specifications - Graphics

Resolution	Maximum Refresh Rate (Hz)	
	Analog	Digital
640 x 480	85	60
800 x 600	85	60
1024 x 768	85	60
1280 x 720	85	60
1280 x 1024	85	60
1440 x 900	75	60
1600 x 1200	85	60
1680 x 1050	75	60
1920 x 1080	85	60-R
1920 x 1200	85	60-R
1920 x 1440	85	60*
2048 x 1536	75	60*
2560 x 1600	N/A	60**

* Only supported with a Display Port monitor connection
** Only supported when using a dual link DVI or DP monitor connection.
Note: 60-R denotes reduced blanking timings are used on single link DVI connections and may be sued with other digital connections.

NVIDIA NVS 300 Graphics Card

Introduction
The NVIDIA NVS 300 PCIe Graphics Card is a low profile, dual-head graphics card delivering next-generation multi-display capabilities to professional business and commercial applications.

If you require a graphics card for use with desktops in a telesales-center environment, or frequently analyze spreadsheets requiring the flexibility of dual-monitor displays, the NVIDIA NVS 300 PCIe Graphics Card is the ideal solution for you. Easily installed with a setup wizard, this controller integrates seamlessly with the Microsoft Windows environment. nView - NVIDIA's multi-display software, enhances your productivity in single or multi-display environments by allowing you to take advantage of features like gridlines & Virtual Desktops (Virtual Desktops allows an end user to create up to 32 individual desktops)

The NVIDIA NVS 300 PCIe Graphics Card is also GPU computing ready. It is capable of enhancing system performance if used in conjunction with applications that support GPU computing through DirectCompute, CUDA, or OpenCL frameworks.

The NVIDIA NVS 300 PCIe Graphics Card includes 512MB of DDR3 graphics memory. A minimum system memory configuration of 1GB is needed to support this card.

NOTE: Discrete graphics adapters can also access and use shared system memory, aka non-local video memory, through the PCI Express bus. Because system memory is accessed across the system bus, accessing it is much slower than accessing local memory.

Discrete graphics adapters generally share a portion of system memory with the CPU. Typically, these adapters do not ask for dedicated use of system memory for graphics, thus leaving more resources available for the rest of the system.

Key Benefits

- View your work on two monitors with nView multi-display software and create up to 32 individual desktops (using 'Virtual Desktops' with nView)
- Compatible with all major financial, non-linear editing (NLE), and electronic design automation (EDA) applications
- Includes 512 MB of dedicated DDR3 graphics memory
- Deliver crystal-clear images via dual 400-MHz RAMDACs
- Supports the latest flat-panel displays, dual analog or digital displays
- Robust IT management tools for seamless installation, deployment and maintenance

Technical Specifications - Graphics

	<ul style="list-style-type: none">Passive heatsink for silent operationDirectX 10.1 support in hardware for optimal performance in DX10 applicationsOpenGL 3.3 support in hardware for optimal performance with OpenGL applications
Form Factor	PCI Express x16 (generation 2.0) Low Profile, half length, 2.586" x 5.7" (6.57 x 14.48 cm) Full height bracket utilized when configured to MT
Graphics Controller	Nvidia GT218 GPU
Memory Frame Buffer	512MB DDR3, 64-bit wide Single DMS-59 connector
Output Connectors	Supports dual analog displays with included DMS-59 to dual VGA Y cable. Support dual digital displays with an optional adapter (see complete listing of available optional adapters elsewhere in this QuickSpec).
RAMDAC	Dual 400MHz
Core Clock	520MHz
Memory Clock	790MHz
Frame Buffer	512MB DDR2, 64-bit wide
Maximum Pixel Clock (analog)	400MHz
Overlay planes	One 16-bit video overly plane
Video Acceleration	Directx 10.1; OpenGL 3.3; CUDA, DirectCompute Full screen, full frame video playback of HDTV, Blu-ray and DVD content
High-definition Video Processor (HDVP)	Inbuilt video decoder for multiple video formats including MPEG2, VC-1, WMV9, H.264, and MVC Capable of decoding dual Video Streams at HD (1080p) resolutions Hardware color-space conversion (YUV 4:2:2 and 4:2:0) High-Quality in-built Filtering/Scaling Stereo & HD Audio (LPCM 7.1) support for HDMI outputs (HDMI via optional DVI-HDMI dongles) with the DMS-59 to DisplayPort Adapter
Supported Graphics APIs	OpenGL 3.3 support in hardware DirectX 10.0 support in hardware

Display Resolutions and Refresh Rates

Note: other resolutions may be available but are not recommended as they may not have been tested and qualified by HP

Resolution	Maximum Refresh Rate (Hz)	
	Analog	Digital
640 x 480	85	60
800 x 600	85	60
1024 x 768	85	60
1280 x 720	85	60
1280 x 1024	85	60
1440 x 900	75	60
1600 x 1200	85	60
1680 x 1050	75	60
1920 x 1080	85	60-R
1920 x 1200	85	60-R
1920 x 1440	85	N/A
2048 x 1536	75	N/A

Note: 60-R denotes reduced blanking timings are used on single link DVI connections and may be used with other digital connections.

NVIDIA NVS 310 Graphics Card

Technical Specifications - Graphics

Introduction

The NVIDIA® NVS™ 310 Graphics Card is a PCI Express low profile form factor graphics add-in card targeted as an active low cost graphics solution for the corporate business and enterprise markets.

The NVIDIA® NVS 310 graphics card is an ideal solution for customers requiring a small form factor graphics add-in card for either standard or small form factor PC designs.

Performance and Features

The NVIDIA® NVS 310 Graphics Card offers 512 MB of ultrafast DDR3 memory and is capable of supporting up to 2 displays.

- DisplayPort connector supports multimode technology to support connection to DVI-D, VGA and HDMI monitors with optional adapters in kits [NR078AA](#), [FH973AT](#), [BP937AA](#), [AS615AA](#).
- For a DisplayPort to DisplayPort connections use the optional DisplayPort Cable Kit VN567AA.

Form Factor (H x L)	Low Profile: 2.713 × 6.15 in
Bus Type	PCI Express x16, 2.0 compliant
Graphics Controller	NVIDIA® NVS 310
Memory Size	512 MB DDR3
Memory Clock	875MHz
Memory Bandwidth	14 GB/s
Connectors	2 x DisplayPort 1.2
Maximum Resolution	Up to 2560 x 1600 (digital display) per display.
Display Output	Up to 2 displays in the following configurations DisplayPort output: <ul style="list-style-type: none">• Drives two DisplayPort enabled digital display at resolutions up to 2560 × 1600 at 60 Hz with reduced blanking, when connected natively using the 2 DisplayPort connectors on the NVS 310 graphics card• Supports 2 monitors up to resolution of 1920 × 1200 at 60 Hz with reduced blanking using DisplayPort 1.2 multi stream topology technology. DVI-D output: <ul style="list-style-type: none">• Drives two digital display at resolutions up to 1920 × 1200 at 60 Hz with reduced blanking using DisplayPort to DVI-D single-link cable adaptors• Drives two digital display at resolutions up to 2560× 1600 at 60 Hz with reduced blanking using DisplayPort to DVI-D dual-link cable adaptors HDMI output: <ul style="list-style-type: none">• NVS 310 is capable of driving two high definition (HD) panels up to resolutions of 1920 × 1080P at 60 Hz using DisplayPort to HDMI cable adaptors VGA display output: <ul style="list-style-type: none">• Drives two analog display at resolutions up to 1920 × 1200 at 60 Hz using DisplayPort to VGA cable adaptors

Max. Power 19.5 W

Display Resolutions and Refresh Rates

Note: other resolutions may be available but are not recommended as they may not have been tested and qualified by HP

Resolution	Maximum Refresh Rates (Hz) by Connection			
	DisplayPort to VGA	DisplayPort to DVI-D	DisplayPort to HDMI	DisplayPort
640 x 480	85	60	60	60
800 x 600	85	60	60	60
1024 x 768	85	60	60	60



Technical Specifications - Graphics

1280 x 720	85	60	60	60
1280 x 1024	85	60	60	60
1440 x 900	75	60	60	60
1600 x 1200	60	60	60	60
1680 x 1050	60	60	60	60
1920 x 1080	60-R	60-R	60	60
1920 x 1200	60-R	60-R		60
1920 x 1440				60
2048 x 1536				60
2560 x 1600				60

Note: 60-R denotes reduced blanking timings are used on single link DVI connections and may be used with other digital connections.

NVIDIA GeForce GT 630 Graphics Card

Introduction

The NVIDIA GeForce GT630 DP (2GB) PCIe x16 Card Graphics Card provides a full height, PCI Express x16 graphics add-in card solution based on the NVIDIA Kepler Architecture GPU. The card is designed to support three display connections through its DVI-I, and two DisplayPort connectors.

An ideal solution for desktop PC customers seeking enhanced 2D and advanced 3D graphics performance, the NVIDIA GeForce GT630 DP (2GB) PCIe x16 Cards are an excellent choice for business users who want run multiple displays from a single graphics board. Engage in Web conferencing or video or photo editing, while improving your everyday business PC experience with better graphics and excellent visual display quality.

The NVIDIA GeForce GT630 DP (2GB) PCIe x16 Cards deliver superior PCI Express (PCIe) Gen 3 features including:

- Unprecedented flexibility for new applications and enhanced performance
- Support for NVIDIA surround technology
- Run multiple displays from a single graphics card
- Full 16 lane PCIe Generation 3 bus support with peak bandwidth support
- Wireless Display ready for future support

NOTE: Graphics cards use part of the total system memory (RAM) for graphics performance. System memory dedicated to graphics performance is not available for other use by other programs.

Key Benefits

- 2 GB of DDR3 dedicated on-board graphics frame buffer memory removing the need to share PC system memory
- Features the latest NVIDIA Kepler Architecture GPU Support
- Run multiple displays from a single graphics board
- DisplayPort 1.2 hardware ready for future multi-monitor support
- Provides Dual-Link (DL) DVI-I and two multimode DisplayPort output ports (useable at the same time)
- Also supports legacy displays using adapters:
 - DVI-I to VGA adapter (1 included)
 - HP DP to DVI-D adapter FH973AA (1 included)
 - HP DP to HDMI adapter BP937AA (optional)
 - HP DP to VGA adapter AS615AA (optional)
 - HP DP to dual link DVI-D adapter NR078AA (optional)
- Supports Audio over DisplayPort for users who need audio with video thru the DisplayPort connector. Audio is also supported with the optional HP DP to HDMI adapter (BP937AA).
- Audio is also supported using DVI to HDMI adapters (Adapters not available from HP)
- Conforms to full PCI Express 3.0A specification for full height form factor (x16 lanes native PCI Express implementation)
- HDCP supported on DVI and DisplayPort outputs

Technical Specifications - Graphics

- DirectX11 support in hardware for optimal performance in DX11 applications
- OpenGL 4.2 support in hardware for optimal performance with OpenGL applications

NVIDIA GeForce GT630 DP (2GB)) PCIe x16 Card

Memory	Peak theoretical memory bandwidth
2 GB DDR3 128 bit	28.5 GB/s

Compatibility

The NVIDIA GeForce GT630 DP (2GB) PCIe x16 Card is compatible with the HP Compaq 6005 Pro MT, HP Compaq 6200 Pro MT, HP Compaq 8200 Elite MT/CMT, HP Compaq Elite 8300 MT/CMT, HP Pro 6300 MT, HP Pro 3330 MT, HP Pro 3335 MT, HP Pro 3340 MT.

NOTE: Not all models are available in all regions.

Service and Support

Your Option Limited Warranty is a one (1) year (HP Option Limited Warranty Period) parts replacement warranty on any HP-branded or Compaq-branded options (HP Options). If your HP Option is installed in an HP Hardware Product, HP may provide warranty service either for the HP Option Limited Warranty Period or the remaining Limited Warranty Period of the HP Hardware Product in which the HP Option is being installed, whichever period is the longer but not to exceed three (3) years from the date you purchased the HP Option.

Output connectors1 - Dual link DVI; 2 - Multimode Display Port outputs

Board display optionsSupports three displays

Specification	Description
Graphics Chip	NVIDIA Kepler Architecture GPU
Core clock	875 MHz
Memory clock	891 MHz
Frame buffer	2GB DDR3, 128 bit wide

Board configurationCore clock875 MHz
Memory clock891 MHz
Frame buffer2GB DDR3, 128 bit wide
Bus typePCI Express (x16 lanes) 3.0

Maximum vertical refresh rate85 Hz

Display supportIntegrated 400 MHz RAMDAC

Display max resolution2560 x 1600 digital, 2048 x 1536 analog

Display Resolutions and Refresh Rates

Note: Other resolutions may be available but are not recommended as they may not have been tested and qualified by HP.

Resolution	Maximum Refresh Rate (Hz)	
	Analog Connection	Digital Connection
640x480	85	60
800x600	85	60
1024x768	85	60
1280x720	85	60
1280x1024	85	60
1440x900	75	60
1600x1200	85	60
1680x1050	75	60
1920x1080	85	60-R
1920x1200	85	60-R
1920x1440	85	60
2048x1536	75	60



Technical Specifications - Graphics

2560x1600

N/A

60

NOTE: 60-R denotes reduced blanking timings are used on single-link DVI connections and may be used with other digital connections.



Technical Specifications – Hard Disk and Solid State Storage

Introduction:

HP Serial Advanced Technology Attachment (SATA) Hard Drives maximize the performance of HP Business PCs by providing the technologies to meet your increasing storage demands with high-capacity drives offering superior reliability and performance.

SATA provides faster data transfer speeds, better system cooling airflow, more bandwidth, more headroom for speed increases in future generations and better data integrity. A next-generation technology, the SATA interface connects hard drives to the PC platform enabling easy aggregation of multiple hard drives into a single PC. This offers you the additional benefits of dedicated bandwidth, the ability to more easily identify device failures and scalability. The HP Compaq 6300 Pro Series supports the latest SATA 6.0Gb/s specification.

HP Drive Lock

HP Serial ATA Hard Drives offer enhanced security via a new Drive Lock. When enabled, this ATA security feature set prevents software access to user data on the drive until one or two user-defined passwords are provided.

SMART IV Technology

Self Monitoring Analysis and Reporting Technology (SMART) hard drive technology allows hard drives to monitor their own health and to raise flags if imminent failures are predicted. If the drive determines that a failure is imminent, the SMART hard drive technology enables the intelligent manageability or management software to generate a fault alert. While the current versions of SMART hard drives do a good job monitoring the data on the hard drive media, the ever increasing emphasis on reliability and quality has promoted HP to implement SMART IV technology which constantly checks that the data flow from host interface to media and media to host interface is not compromised. This is accomplished by inserting a 2 byte parity code into every 512 byte block in the data path of the hard drive's Cache RAM. This unique parity checking performed by HP's SMART IV technology hard drives, allows for more complete error detection coverage encompassing the entire data path between the host and the hard drive.

Smart IV is also known as IOEDC: I/O Error Detection Code.

Native Command Queuing

NCQ or Native Command Queuing is a SATA protocol extension that allows the hard drive to have several write or read commands outstanding at the same time. In contrast, normal non-queued operation requires each command to be completed before the next command is issued by the host system. Queuing allows the drive to complete the commands in the order that allows for best overall throughput. It also involves an advanced method of transferring data to or from the host, called First Party Direct Memory Access (FPDMA), which allows the hard drive and the host controller to manage the data transfers for multiple outstanding commands, without involving the host processor. NCQ can contribute to better performance but the results are dependent on many factors, including the access patterns of the various applications and operating system functions that are initiating drive accesses. Enabling NCQ features in the hard drive requires AHCI support from the host system BIOS, controller, and driver. AHCI support is typically implemented in RAID configurations.

Note: GB = 1 billion bytes. Actual available capacity is less.

Technical Specifications – Hard Disk and Solid State Storage



Storage Drive Support						
	SFF			MT		
	MCR	ODD	HDD	MCR	ODD	HDD
# of supported devices	1	1	2	1	2	2
Drive position	1	2	1,3	3	1,2	4,5

Controller

Hard Drive Controller	These systems provide four serial ATA (SATA) interfaces that support transfer rates up to 6.0 Gb/s (for ports 0 and 1, 3 Gb/s on all others). These systems can also support an external SATA (eSATA) device through an optional bracket/cable assembly.
SATA Interfaces	2 ea. SATA 3.0 1 ea. SATA 2.0 1 ea. eSATA
Host SATA Controller	Advanced Host Controller Interface (AHCI) Revision 1.2. The specification includes a description of the hardware/software interface between system software and the host controller hardware.

HP 250-GB 7200rpm SATA 6.0Gb/s 3.5” Hard Disk Drive

Capacity	250,059,350,016 bytes
Rotational Speed	7,200 rpm
Interface	Serial ATA 3.0 (6.0 Gb/s)
Buffer Size	8 MB
Logical Blocks	488,397,168
Seek Time (typical reads, includes controller overhead, including settling)	Single Track: 1.0 ms Average: 8.5 ms Full-Stroke: 18 ms
Height (nominal)	1 in (2.54 cm) Media diameter: 3.5 in (8.89 cm)
Width (nominal)	Physical size: 4 in (10.2 cm)
Operating Temperature	41° to 131° F (5° to 55° C)

Technical Specifications – Hard Disk and Solid State Storage

HP 500-GB 7.2K rpm SATA 6.0Gb/s 3.5” Hard Disk Drive

Capacity	500,107,862,016 bytes
Rotational Speed	7,200 rpm
Interface	Serial ATA 3.0 (6.0 Gb/s)
Buffer Size	16 MB
Logical Blocks	976,773,168
Seek Time (typical reads, includes controller overhead, including settling)	Single Track: 2.0 ms Average: 11 ms Full-Stroke: 21 ms
Height (nominal)	1 in/2.54 cm
Width (nominal)	Media diameter: 3.5 in/8.89 cm Physical size: 4 in/10.2 cm
Operating Temperature	41° to 131° F (5° to 55° C)

HP 1-TB 7.2K rpm SATA 6.0Gb/s 3.5” Hard Disk Drive

Capacity	1,000,204,886,016 bytes
Rotational Speed	7,200 rpm
Interface	Serial ATA 3.0 (6.0 Gb/s)
Buffer Size	32 MB
Logical Blocks	1,953,525,168
Seek Time (typical reads, includes controller overhead, including settling)	Single Track: 2.0 ms Average: 11 ms Full-Stroke: 21 ms
Height (nominal)	1 in/2.54 cm
Width (nominal)	Media diameter: 3.5 in/8.89 cm Physical size: 4 in/10.2 cm
Operating Temperature	41° to 131° F (5° to 55° C)

HP 120-GB Solid State Drive

Unformatted Capacity	120 GB
Architecture	Multi Level Cell (MLC) NAND Flash with wear leveling 10 channel controller
Interface	Serial ATA 2.0 (3.0 Gb/s)
Dimensions (W x H x D)	2.74 x 0.37 x 4 in/6.98 x 0.95 x 10.2 cm
Weight	0.18 lb/80 g
Bandwidth Performance	Sustained Sequential Read: Up to 250 MB/s Sustained Sequential Write: Up to 70 MB/s Random Read: Up to 35K IOPs Random Write: Up to 6.6K IOPs
Latency	Read: 65-ms Write: 85-ms
Power	DC power requirement: 5 VDC 5%-100 mV ripple p-p Total power consumption: 0.15W (active); 0.075W (idle)
Useful Drive Life	35TB written, up to 20GB/day for 5 years

Technical Specifications – Hard Disk and Solid State Storage

Environmental (all conditions, non-condensing)	Operating Temperature: 32° to 158° F (0° to 70° C)
	Relative Humidity: 5% to 95%
	Maximum Wet Bulb Temperature (operating): 84° F (29° C)
	Shock: 1,500 G/0.5-ms

HP 128 GB Solid State Drive

Unformatted Capacity	128 GB*
Architecture	Multi Level Cell (MLC) NAND
Interface	SATA 6 GB/sec
Dimensions (W x H x D)	2.75 x 0.276 x 3.96 in (6.985 x 0.7 x 10.05 cm)
Weight	0.16 lb (73 g)
Bandwidth Performance	Sustained Sequential Read: Up to 450 MB/s
	Sustained Sequential Write: Up to 260 MB/s
	Random Read: up to 46K IOPs
	Random Write: up to 56K IOPs
Latency	Read: 55µs (TYP)
	Write: 55µs (TYP)
Power	DC power requirement: Min 4.5 V; Max 5.5 V
	Total power consumption: 160 mW (Active) ; <85 mW; (Idle)
Useful Drive Life	1.2 million device hours**
Environmental (all conditions, non-condensing)	Operating Temperature: 32° to 158° F (0° to 70° C)
	Relative Humidity: 5% to 95%
	Maximum Wet Bulb Temperature (operating): 84° F (29° C)
	Shock: 1,500 G/1.0 msec
Regulations	UL, CSA, EN 60950-2000, CISPR Pub 22 Class B, CNS 13438, AS/NZS CISPR 22:2002 Class B, Korea KCC, CE Mark
Option kit contents	HP 128 GB Solid State Drive, documentation, 3.5-inch bay adapter bracket, 3.5-inch bay adapter bracket screws, SATA cable

* For solid state disk drives, GB means 1 billion bytes. 128GB is the unformatted capacity of this drive before a portion of the drive is reserved for flash management features. Actual capacity will vary by content

** The product achieves a mean time between failure (MTBF) based on population statistics not relevant to individual units.

Technical Specifications - Removable Storage

HP Blu-ray Writer Drive

AMO Part Number	AR482AA		
Height	5.25-inch, half-height, tray-load		
Orientation	Either horizontal or vertical		
Interface type	SATA		
Disc capacity	50 GB DL or 25 GB standard		
Dimensions (W x H x D)	5.9 x 1.7 x 8.0 in (15.0 x 4.4 x 19.0 cm)		
Weight (max)	2.0 lb (907 g)		
Disc Capacity	DVD-ROM	8.5GB DL or 4.7GB standard	
	Blu-ray	50GB DL or 25GB standard	
	Full Stroke DVD	< 250 ms (seek)	
	Full Stroke CD	< 210 ms (seek)	
	Blu-ray	< 275 ms (seek)	
		(Time to drive ready from tray loading)	
		BD-ROM (SL/DL)	25S / 28S
		BD-R (SL/DL)	25S / 28S
		BD-RE (SL/DL)	25S / 28S
		DVD-ROM (SL/DL)	18S / 18S
	Startup Time	DVD-R (SL/DL)	25S / 25S
		DVD-RW	25S
		DVD+R (SL/DL)	25S / 25S
		DVD+RW	DVD+RW 25S
		DVD-RAM	45S
		CD-ROM	15S
	CD-ROM Read	CD-ROM up to 40X	
	CD-R up to 40X		
	CD-RW up to 40X		
DVD-ROM Read	DVD-RAM up to 5X		
	DVD+RW up to 10X		
	DVD-RW up to 10X		
	DVD+R DL up to 8X		
	DVD-R DL up to 8X		
Maximum Data Transfer	DVD-ROM up to 16X		

Technical Specifications - Removable Storage

Rates		DVD-ROM DL up to 8X
		DVD+R up to 12X
		DVD-R up to 12X
Blu-ray		BD-ROM up to 6X
		BD-ROM DL up to 4.8X
		BD-R up to 6X
		BD-R DL up to 4.8X
		BD-R up to 6X
		BD-RE SL/DL up to 4.8X
Power	Source	SATA DC power receptacle
	DC Power Requirement	5 VDC ± 5%-100 mV ripple p-p 12 VDC ± 5%-200 mV ripple p-p
	DC Current	5 VDC -1000 mA typical, 1600 mA maximum 12 VDC -600 mA typical, 1400 mA maximum
	Temperature (operating)	41° to 122° F (5° to 50° C)
Environmental (all conditions non-condensing)	Relative Humidity (operating)	10% to 90%
	Maximum Wet Bulb Temperature (operating)	86° F (30° C)

HP SuperMulti DVD Writer Drive

AMO Part Number	AR630AT		
Height	5.25-inch, half-height, tray-load		
Orientation	Either horizontal or vertical		
Interface type	Serial ATA		
Dimensions (W x H x D)	5.9 x 1.7 x 8.0 in (15.0 x 4.4 x 20.3 cm)		
Weight (max)	2.6 lb (1.2 kg)		
	CD Media Read Access	Random	< 120 ms typical
		Full Stroke	< 200 ms typical
	DVD Media Read Access	Random	< 130 ms typical
		Full Stroke	< 240 ms typical
		CD-ROM, CD-R Read	Up to 6000 KB/s (40X)
		CD-RW Read	Up to 4800 KB/s (32X)
		Digital/Analog Audio Playback	Up to 2400 KB/s (16X)
	CD Media Read Transfer	Digital Audio Extraction (CD-ROM, CD-R)	Up to 6000 KB/s (40X)
		Digital Audio Extraction (CD-RW)	Up to 4800 KB/s (32X)
		Video CD Playback	Up to 2400 KB/s (16X)
		DVD-ROM SL Read	Up to 21600 KB/s (16X)
		DVD-ROM DL Read	Up to 10800 KB/s (8X)

Technical Specifications - Removable Storage

Performance

DVD Media Read Transfer	DVD Video Playback	Up to 10800 KB/s (8X)
	DVD Video SL (other than playback)	Up to 21600 KB/s (16X)
	DVD Video DL (other than playback)	Up to 10800 KB/s (8X)
	DVD-R	Up to 21600 KB/s (16X)
	DVD+R	Up to 21600 KB/s (16X)
	DVD-RW	Up to 10800 KB/s (8X)
	DVD-R DL	Up to 10800 KB/s (8X)
	DVD+RW	Up to 10800 KB/s (8X)
CD Media Write Transfer	CD-R Write	Up to 6000 KB/s (40X)
	CD-RW	600 KB/s (4X)
	CD-RW (High speed)	1500 KB/s (10X)
	CD-RW (Ultra speed)	Up to 3600 KB/s (24X)
	CD-RW (Ultra speed+)	Up to 4800 KB/s (24X)
	DVD+R	Up to 21600 KB/s (16X)
	DVD+R DL (v1.2)	Up to 16200 KB/s (8X)
	DVD+R DL (v1.1)	Up to 10800 KB/s (8X)
DVD Media Write Transfer	DVD+RW (Volume 2 v1.0)	Up to 10800 KB/s (8X)
	DVD+RW (Volume 1 v1.3)	Up to 5400 KB/s (4X)
	DVD-R (v2.1 rev. 6.0)	Up to 16200 KB/s (12X)
	DVD-R (v2.1 rev. 4.0)	Up to 21600 KB/s (16X)
	DVD-R DL (v3.0 rev. 5.0)	Up to 10800 KB/s (8X)
	DVD-R DL (v3.0 rev. 3.0)	Up to 10800 KB/s (8X)
	DVD-RW (v1.2 rev. 3.0)	8100 KB/s (6X)
	DVD-RW (v1.2 rev. 2.0)	Up to 5400 KB/s (4X)
	DVD-RAM (v2.2 rev. 5.0)	Up to 16200 KB/s (5X)
	DVD-RAM (v2.2 rev. 2.0)	Up to 6750 KB/s (5X)

Media Compatibility	Media	Read	Write
	CD-ROM	Yes	No
	CD-R	Yes	Yes
	CD-RW	Yes	Yes
	DVD-ROM	Yes	No
	DVD-ROM DL	Yes	No
	DVD-RAM	Yes	Yes
	DVD+R	Yes	Yes
	DVD+R DL	Yes	Yes
	DVD+RW	Yes	Yes
	DVD-R	Yes	Yes
	DVD-RW	Yes	Yes
	DVD-R DL	Yes	No
	Source	SATA DC power receptacle	
	DC Power Requirement	5 VDC \pm 5%	100 mV ripple p-p
		12 VDC \pm 5%	200 mV ripple p-p
		5 VDC	<1000 mA (typical) 1600 mA (max.)

Power Supply

	DC Current	12 VDC	1200 mA (typical) 2000 mA (max.)
		Total Drive Power (Standby Mode)	< 2.5W
Rear Panel	SATA Power Connector, 15-pin		
	SATA Data Connector, 7-pin		
	Markings to identify each connector		
Environmental conditions (all conditions non-condensing)	Operating Temperature	41° to 122° F (5° to 50° C)	
	Storage Temperature	–22° F to 140° F (–30° C to 60° C)	
	Relative Humidity	10% to 90%	
	Maximum Wet Bulb Temperature	86° F (30° C)	
	Altitude	0 to 10,171 ft. (0 to 3,100 meters)	

AMO Part Number	AR629AA
Height	5.25-inch, half-height, tray-load
Orientation	Either horizontal or vertical
Interface type	Serial ATA
Dimensions (W x H x D)	5.8 x 1.7 x 6.9 in (14.8 x 4.2 x 17.5 cm)
Weight (max)	2.1 lb (950 kg)

CD Media Read Access	Random	< 120 ms typical
	Full Stroke	< 200 ms typical
DVD Media Read Access	Random	< 130 ms typical
	Full Stroke	< 240 ms typical
CD Media Read Transfer	CD-ROM, CD-R Read	Up to 6000 KB/s (40X)
	CD-RW Read	Up to 4800 KB/s (32X)
	Digital/Analog Audio Playback	Up to 2400 KB/s (16X)
	Digital Audio Extraction (CD-ROM, CD-R)	Up to 6000 KB/s (40X)
	Digital Audio Extraction (CD-RW)	Up to 4800 KB/s (32X)
	Video CD Playback	Up to 2400 KB/s (16X)
	DVD-ROM SL Read	Up to 21600 KB/s (16X)
	DVD-ROM DL Read	Up to 10800 KB/s (8X)
	DVD Video Playback	Up to 10800 KB/s (8X)
	DVD Video SL (other than playback)	Up to 21600 KB/s (16X)
DVD Media Read Transfer	DVD Video DL (other than playback)	Up to 10800 KB/s (8X)
	DVD-R	Up to 21600 KB/s (16X)
	DVD+R	Up to 21600 KB/s (16X)
	DVD-RW	Up to 10800 KB/s (8X)
	DVD-R DL	Up to 10800 KB/s (8X)
	DVD+RW	Up to 10800 KB/s (8X)

	Media	Read	Write
CD-ROM	Yes	No	

Technical Specifications - Removable Storage

Media Compatibility	CD-R	Yes	No
	CD-RW	Yes	No
	DVD-ROM	Yes	No
	DVD-ROM DL	Yes	No
	DVD-RAM	Yes	No
	DVD+R	Yes	No
	DVD+R DL	Yes	No
	DVD+RW	Yes	No
	DVD-R	Yes	No
	DVD-RW	Yes	No
	DVD-R DL	Yes	No
Power Supply	Source	SATA DC power receptacle	
	DC Power Requirement	5 VDC ± 5%	100 mV ripple p-p
		12 VDC ± 5%	200 mV ripple p-p
	5 VDC		1000 mA (typical)
			1600 mA (max.)
Rear Panel	DC Current	12 VDC	1200 mA (typical)
			2000 mA (max.)
		Total Drive Power (Standby Mode)	< 2.5W
	SATA Power Connector, 15-pin		
Environmental conditions (all conditions non-condensing)	SATA Data Connector, 7-pin		
	Markings to identify each connector		
	Operating Temperature	41° to 122° F (5° to 50° C)	
	Storage Temperature	–22° F to 140° F (–30° C to 60° C)	
	Relative Humidity	10% to 90%	
	Maximum Wet Bulb Temperature	86° F (30° C)	
	Altitude	0 to 10,171 ft. (0 to 3,100 meters)	

HP 22-n-1 Media Card Reader

USB 2.0 High-speed interface

USB Interface	Note: Requires the USB cable to be connected to the internal USB 2.0 port or a USB 2.0 PCI card.
	Supports hardware ECC (Error Correction Code) function
	Supports hardware CRC (Cyclic Redundancy Check) function
	Supports MS 4-bit parallel transfer mode
	Supports MS-PRO 4-bit parallel transfer mode
Advance protocol support	Supports MS PRO-HG Duo 4-bit parallel transfer mode
	Supports SD 4-bit parallel transfer mode
	Supports high-speed 50Mhz SD 4-bit card (version 2.0)
	Supports high-speed 52Mhz MMC 8-bit card (version 4.2)

Technical Specifications - Removable Storage

Supported media type	Supports CF v4.0 with PIO mode 6 and Ultra DMA mode
	CompactFlash Type I
	CompactFlash Type II
	Microdrive
	MultiMediaCard (MMC)
	Reduced Size MultiMediaCard (RS MMC)
	MultiMediaCard 4.2 (MMC Plus, including MMC Plus HC)
	Reduced Size MultiMediaCard 4.2 (MMC Mobile, including MMC Mobile HC)
	Secure Digital Card (SD)
	Secure Digital High Capacity (SDHC)
	miniSD
	miniSD High Capacity
	Micro SD (T-Flash)
	Micro SD HC
	Memory Stick
	Memory Stick Select
	Memory Stick Duo (MS Duo)
	Memory Stick PRO (MS PRO)
	Memory Stick PRO Duo (MS PRO Duo)
	Memory Stick PRO-HG Duo
	MagicGate Memory Stick (MG)
	MagicGate Memory Stick Duo
	xD-Picture Card
Supported media type with card adapter	Memory Stick Micro (M2)
	MMC Micro
Environmental	Operational Environmental Extremes
	Test Parameters/Conditions - Power applied, unit operating on system ±5% nominal supply voltage. 10°C 10% R.H. ≤ 24 hours 10°C 90% R.H. ≤ 24 hours 20°C 90% R.H. ≤ 24 hours 30°C 90% R.H. ≤ 24 hours 40°C 90% R.H. ≤ 24 hours 50°C 90% R.H. ≤ 24 hours 50°C 10% R.H. ≤ 24 hours
	Storage Environmental Extremes
	Test Parameters/Conditions 140°F (60°C) @ 80% R.H. for 96 hours -22°F (-30°C) @ 20% R.H. for 48 hours No power applied Delta °C < 1.0°C/min Delta % R.H. < 1.5% R.H./min



Technical Specifications - Removable Storage

Approvals

USB-IF, WHQL, Compliant with USB Mass Storage Class Bulk only Transport Specification Rev. 1.0

Compliant Intel Front Panel I/O Connectivity Design Guide V. 1.3

FCC, CE, BSMI, C-Tick, VCCI, MIC, cUL, TUV-T

Technical Specifications – Memory

System Memory Support

The HP Compaq Pro 6300 Business PC supports the 2nd and 3rd generation Intel® Core™ processor families. Based on a new PC micro-architecture, the processor is designed for a two-chip platform consisting of a processor and Platform Controller Hub (PCH). Unlike previous generations, the processor includes an integrated memory controller (IMC). The IMC supports DDR3 protocols with two independent, 64-bit wide channels each accessing one or two DIMMs.

- Two channels of non-ECC DDR3 unbuffered dual in-line memory modules (UDIMM) or DDR3 unbuffered small outline dual in-line memory modules (SO-DIMM) with a maximum of two DIMMs per channel
- Single-channel and dual-channel memory organization modes
- Data burst length of eight for all memory organization modes
- DDR3 memory data transfer rates of up to 1600 MT/s; actual supported DDR3 data transfer rate determined by the configured processor.
- 64-bit wide channels
- DDR3 system memory I/O voltage of 1.5V
- Theoretical Maximum Memory Bandwidth:
 - 10.6 GB/s in single-channel mode of 21.3 GB/s in dual-channel mode assuming DDR3 1333 MT/s
 - 12.8 GB/s in single-channel mode or 25.6 GB/s in dual-channel mode assuming DDR3 1600 MT/s
 - 32 GB maximum memory support depending upon available number of DIMM sockets
- DDR3-1600 (PC3-12800) DIMMs are supported but limited to the 1333 MT/s data transfer rate when not configured with IvyBridge generation chipset.

CAUTION: You must shut down the computer and disconnect the power cord before adding or removing memory modules. Regardless of the power-on state, voltage is always supplied to the memory modules as long as the computer is plugged in to an active AC outlet. Adding or removing memory modules while voltage is present may cause irreparable damage to the memory modules or system board.

Memory Configurations:

Slot 1 is black and must always be populated. Not all memory configurations possible are represented below.

NOTE: For systems configured with more than 3 GB of memory and a 32-bit operating system, all memory may not be available due to system resource requirements. Addressing memory above 4 GB requires a 64-bit operating system.

Total Memory	Socket			
	Channel A		Channel B	
	1 (black)	2 (white)	3 (white)	4 (white)
2 GB	2 GB	unpopulated	Unpopulated	unpopulated
4 GB (dual channel)	2 GB	unpopulated	2 GB	unpopulated
8 GB (dual channel)	2 GB	2 GB	2 GB	2 GB
16 GB (dual channel)	8 GB	4 GB	4 GB	4 GB

Technical Specifications - Communications

Intel 82579LM GbE Network Connection (integrated)

Connector	RJ-45
System Interface	Integrated on PCA
Controller	Intel 82579LM GbE platform LAN connect networking controller
Memory	24 KB FIFO packet buffer memory
Data rates supported	10/100/1000 Mbps
IEEE Compliance	802.1P
	802.1Q
	802.2
	802.3
	802.3ab
	802.3az
IEEE Compliance	802.3u
Bus architecture	PCI Express and SMBus
Data transfer mode	PCIe-based interface for active state operation (S0 state) and SMBus for host and management traffic (Sx low power state)
Power requirement	Requires 3.3V and 1.05V or just 3.3V with integrated regulators Power consumption 0.697 Watts
Boot ROM support	Yes
Network transfer mode	Full-duplex Half-duplex (not supported for the 1000BASE-T transceiver)
Network transfer rate	10BASE-T (half-duplex) 10 Mbps 10BASE-T (full-duplex) 20 Mbps 100BASE-TX (half-duplex) 100 Mbps 100BASE-TX (full-duplex) 200 Mbps 1000BASE-T (full-duplex) 2000 Mbps
Environmental	Operating Temperature: 0° to 85° C Operating Humidity: 60% RH
Management	WOL, auto MDI crossover, PXE, Multi-port teaming, RSS, Advanced cable diagnostic.
Alerting	ASF 2.0 support; AMT 7.0 support

Intel Gigabit CT Desktop Network Interface Controller

Connector	RJ-45
System Interface	PCI Express x1
Controller	Intel WG82574L Gigabit Ethernet Controller
Memory	Integrated Dual 48K configurable transmit receive FIFO Buffers
Data rates supported	10/100/1000 Mbps
Compliance	IEEE 802.1P, 802.1Q, 802.2, 802.3, 802.3AB and 802.3u compliant, 802.3x flow control
Bus architecture	PCI-E 1.0a
Data path width	X1, 250 MB/s, Bi-directional interface
Data transfer mode	Bus-master DMA
Hardware certifications	FCC, B, CE, TUV- cTUVus Mark Canada and United States, TUV- GS Mark for European Union
Power requirement	Aux 3.3V, 3.0 Watts in 1000base-T and 2.0 Watts in 100Base-T
Boot ROM support	Yes



Technical Specifications - Communications

Network Transfer Rate	10BASE-T (half-duplex) 10 Mbps
	10BASE-T (full-duplex) 20 Mbps
	100BASE-TX (half-duplex) 100 Mbps
	100BASE-TX (full-duplex) 200 Mbps
	1000BASE-T (full-duplex) 2000 Mbps (actual rate limited by PCI Bus)
Environmental	Operating Temperature: 32° to 131°F (0° to 55° C)
	Operating Humidity: 85% at 131° F (55° C)
Dimensions	4.75 x 2.25 x 0.8 in (12.1 x 5.7 x 2.0 cm)
Management	WOL, PXE, DMI, WFM 2.0

HP 802.11 b/g/n Wireless Network Connection

Dimensions (L x H)	2.8 x 2.2 in (7.0 x 5.7 cm)	
Weight	0.08 lbs (40 g)	
Controller	Ralink RT2790	
System interface	PCI Express x1	
Network standard	802.11 b/g/n	
Frequency band	2.400 - 2.497 GHz	
Operating temperature	14° to 149°F, operating (-10° to 65°C, operating)	
Storage temperature	-40° to 176°F, non-operating (-40° to 80°C, non-operating)	
Humidity	10-90% operating	
	5-95% non-operating	
Operating voltage	3.3V +/- 9%	
	12V +/- 8%	
Power Consumption	Platform/WLAN Mode	Power Consumption
	Maximum Power Consumption:	10 Watts
	Transmit Only	4 Watts maximum averaged power over 1 second
	Transmit Packet or Active Scanning	1000 mA peak current for 100 microseconds or longer
	Receive Only Mode or Idle without IEEE PSP mode enabled	3 Watts maximum averaged over 1 second
	Idle, with IEEE PSP mode enabled	1.0 Watts maximum averaged over 1 second
	Transmit Disabled (turned off in software)	50 mW maximum, averaged over 1 second
	Platform in S3 or S4 (power removed from Low Profile PCI Express Card)	5 mW maximum, averaged over 1 second
	802.11b mode	+19 dBm +/- 1.0 dB maximum
	802.11g mode	+17 dBm +/- 1.0 dB maximum
Output Power (approximate)	EWC mode	+17 dBm +/- 1.0 dB maximum (total power in all transmit chains)

Technical Specifications - Communications

	IEEE and WiFi compliant 64 / 128 bit WEP encryption
	AES: CCM
	802.1x authentication
Security	WPA: 802.1x. WPA-PSK and TKIP
	WPA2 certification
	IEEE 802.11i
Antenna	Cisco Certified Extensions, all versions through V5
	HP part number 497317-003
Certifications	Wi-Fi certified
Certifications for use by country	United States, Canada, Peru, Taiwan

Technical Specifications - Audio

High Definition Audio

Type	Integrated
HD Stereo Codec	Realtek 2-channel ALC221 codec
Audio I/O Ports	Front microphone-In (150-K ohm Input Impedance) Rear Line-In/Microphone input (150-K ohm Input Impedance, function is configurable by audio driver) Rear Line-Out* (190 ohms Output Impedance, expects at least a 10-K ohm load) Front Headphone-Out (0.5 Ohm Output Impedance, expects at least a 32 ohm load) Front Microphone/Headphone jack is re-task able to provide Microphone input, line-in or Headphone output to support connecting two headphones to the front of the system. When configured as a second front headphone output, both front headphone outputs are always driven with the same signal. All ports are 3.5mm
Internal Speaker Amplifier	1.5W amplifier for the internal speaker only. External speakers must be powered externally. Rear Line-in audio port is re-taskable as either Line-in or Microphone-In.
Multi-streaming Capable	Multi-streaming can be enabled in the Realtek control panel to allow independent audio streams to be sent to/from the front and rear jacks.
Sampling	8 kHz - 192 kHz
Wavetable Syntheses	Yes – Uses OS soft wavetable
Analog Audio	Yes
# of Channels on Line-Out	Stereo (Left & Right channels)
Internal Speaker	Yes
External Speaker Jack	Yes

HP Thin USB Powered Speakers

On/Off/Volume Controls	Right side of right speaker
Power LED	Front of right speaker (green)
Frequency Response	FO to 20kHz
Watts	2/3 watt (normal/maximum)
Dimensions/Speaker (H x W x D)	5.72 x 3.74 x 0.96 in 14.52 x 9.50 x 2.45 cm
Net Weight	0.68 lbs 0.31kg
Color	Black
Environmental (all conditions non-condensing)	Operating Temperature: 14° to 104° F (-10° to 40° C) Relative Humidity 40% to 90%
Speaker Cable Length	Input Cord: 5.91 ft (1800 mm) L-channel Cord: 3.28 ft (1000 mm) USB Cord: 5.91 ft (1800 mm)

Technical Specifications - Input/Output Devices

HP USB Standard Keyboard

Physical characteristics	Keys	104, 105, 106, 107, 109 layout (depending upon country)
	Dimensions (L x W x H)	18.0 x 6.4 x 0.98 in (45.8 x 16.3 x 2.5 cm)
	Weight	2 lb (0.9 kg)
	Operating voltage	+ 5VDC \pm 5%
Electrical	Power consumption	50-mA maximum (with three LEDs ON)
	System interface	USB Type A plug connector
	ESD	CE level 4, 15-kV air discharge
	EMI - RFI	Conforms to FCC rules for a Class B computing device
Mechanical	Microsoft® PC 99 - 2001	Functionally compliant
	Languages	38 available
	Keycaps	Low-profile design
	Switch actuation	55-g nominal peak force with tactile feedback
	Switch life	20 million keystrokes (using Hasco modified tester)
	Switch type	Contamination-resistant switch membrane
	Key-leveling mechanisms	For all double-wide and greater-length keys
	Cable length	6 ft (1.8 m)
	Microsoft PC 99 - 2001	Mechanically compliant
	Acoustics	43-dBA maximum sound pressure level
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	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)	42 in (107 cm) on concrete, 16-drop sequence
Approvals	UL, CSA, FCC, CE Mark, TUV, TUV GS, VCCI, BSMI, C-Tick, MIC	
Ergonomic compliance	ANSI HFS 100, ISO 9241-4, and TUVGS	
Kit contents	Keyboard	Installation Guide
	Warranty Card	Safety and Comfort Guide

Technical Specifications - Input/Output Devices

HP PS/2 Standard Keyboard

Physical Characteristics	Keys	104, 105, 106, 107, 109 layout (depending upon country)
	Dimensions (L x W x H)	18.0 x 6.4 x 0.98 in (45.8 x 16.3 x 2.5 cm)
	Weight	2 lb (0.9 kg) minimum
	Operating voltage	+ 5VDC ± 5%
Electrical	Power consumption	50-mA maximum (with three LEDs ON)
	System interface	PS/2 6-pin mini din connector
	ESD	CE level 4, 15-kV air discharge
	EMI - RFI	Conforms to FCC rules for a Class B computing device
Mechanical	Microsoft PC 99 - 2001	Functionally compliant
	Languages	38 available
	Keycaps	Low-profile design
	Switch actuation	55-g nominal peak force with tactile feedback
	Switch life	20 million keystrokes (using Hasco modified tester)
	Switch type	Contamination-resistant switch membrane
	Key-leveling mechanisms	For all double-wide and greater-length keys
	Cable length	6 ft 1.8 m
	Microsoft PC 99 - 2001	Mechanically compliant
	Acoustics	43-dBA maximum sound pressure level
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	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)	42 in (107 cm) on concrete, 16-drop sequence
Approvals	UL, CSA, FCC, CE Mark, TUV, TUV GS, VCCI, BSMI, C-Tick, MIC	
Ergonomic compliance	ANSI HFS 100, ISO 9241-4, and TUVGS	

HP USB Smart Card (CCID) Keyboard

Introduction:



Technical Specifications - Input/Output Devices

Boost your security, simplify access procedures and reduce the costs associated with managing networks by preventing unauthorized access to your computers and networks using smartcard technology with the HP Smart Card (CCID) Keyboard.

The USB Smart Card (CCID) Keyboard is a full-sized keyboard that takes advantage of digital signatures and certificates to secure the environment for transactions performed on both public and private networks. The USB Smart Card (CCID) Keyboard works with all smart cards that comply with ISO standard 7816.

Smart cards are easy-to-use credit card-sized devices which require multiple forms of information to be validated before you gain access to your accounts or resources. Used worldwide, smart cards strengthen access to a network or other resource using dual-factor authentication. Implementing a two-factor authentication (or multi-factor authentication) process reduces the risk of unauthorized access by verifying and validating your identity in one of the following ways:

- Something you know – a combination of username and password or PIN
- Something you have – a smart card or security token.

Something you have (smart card) plus something you know (PIN), improves user-access security within corporate network environments. Smart cards are used in government agencies, healthcare companies and the finance industry.

HP Client Security Smart Card Manager provides authentication software for the smart card. The Smart Card Reader module works with the HP Client Security Manager and enables the user to setup, use, and manage the smart card. This allows strengthened security with HP patented technology.

- Key Benefits:
- Protects against unauthorized access with smart card technology
 - Delivers even greater security when combined with a HP Client Security smart card and the HP Client Security Software
 - Combination of username and password or pin with a smart card or security token
 - Secures online transactions using digital signatures and certificates
 - Conforms to industry standards for ease of setup and use
 - Delivers long product life and quiet operation with high-impact materials and lubricated keys
 - Spill drain feature

Physical Characteristics	Keys	104, 105, 106, 107, 109 layout (depending upon country)
	Form factor	USB basic smart card keyboard
	Colors	Carbonite/Silver
	Dimensions (H x W x D)	18.2 x 6.3 x 1.3 in 46.3 x 16.1 x 3.3 cm
	Weight	2 lb (0.9 kg) minimum
	Operating voltage	+ 5VDC ± 5%
	Power consumption	100-mA maximum (with four LEDs ON)
Electrical	System interface	USB Type A plug connector
	ESD	CE level 4, 15-kV air discharge
	EMI - RFI	Conforms to FCC rules for a Class B computing device
	Microsoft PC 99 - 2001	Functionally compliant
	Languages	30+ available
	Keycaps	Standard design
	Switch actuation	55 g nominal peak force with tactile feedback
Mechanical	Switch life	20 million keystrokes (using Hasco modified tester)
	Switch type	Contamination-resistant membrane
	Key-leveling mechanisms	For all double-wide and greater-length keys
	Cable length	6 ft (1.8 m)

Technical Specifications - Input/Output Devices

Environmental	Microsoft PC 99 - 2001	Mechanically compliant		
	Acoustics	43-dBA maximum sound pressure level		
	Operating temperature	50° to 122° F (10° to 50° C)		
	Non-operating temperature	-22° to 140° F (-30° to 60° C)		
	Operating humidity	10% to 90% (non-condensing at ambient)		
	Non-operating humidity	20% to 80% (non-condensing at ambient)		
	Operating shock	40 g, six surfaces		
	Non-operating shock	80 g, six surfaces		
	Operating vibration	2-g peak acceleration		
	Non-operating vibration	4-g peak acceleration		
	Drop (out of box)	26 in (66 cm) on carpet, six-drop sequence		
	Drop (in box)	42 in (107 cm) on concrete, 16-drop sequence		
	Support	All ISO 7816 smart cards		
	Interface	Reads from and writes to all ISO7816-1, 2, 3, 4 memory and microprocessor smart cards (T=0, T=1)		
SmartCard Function	Chipset	SCM STCIII		
	Standard APIs supported	PC/SC, EMV2000, CT-API		
	Power	USB Port		
		Short circuit detection (protects smart card and reader)		
		Power supply compliant with ISO7816 and EMV (5V, 60 mA)		
		Supports 3-V and 5-V cards		
	Power consumption	100-mA maximum draw		
	Communication	From card	9600 bps to 330,000 bps	
		From computer	12 Mbps (USB transfer speed)	
	Landing mechanism	Contact device	Friction contact	
Card insertions rating		Up to 100,000 insertion cycle		
Interface modes	CCID protocol			
Reader performance interface	USB connection			
Electro-magnetic standards	Europe	2004/108/EC		
	USA	USAFCC part 15		
Approvals	CE-Mark, UL, CSA, FCC, CE Mark, TUV, TUV GS, VCCI, BSMI, C-Tick, MIC, EMV2000, USB-IF			
Ergonomic Compliance	ISO 9241-4, TUVGS			
Kit Contents	Keyboard, I/O Security and Documentation CD, warranty card			

Technical Specifications - Input/Output Devices

HP USB PS/2 Washable Keyboard

	Keys	104 (US) layout or 105 (EU) layout (depending upon country)
Physical Characteristics	Dimensions (L x W x H)	17.67x 6.62 x 1.38 in (449 x 168 x 35 mm)
	Weight	1.7 lb (0.77 kg) minimum
	Operating voltage	+ 5VDC \pm 5%
	Power consumption	50-mA maximum (with three LEDs ON)
Electrical	System interface	USB Type A plug connector
	ESD	CE level 4, 15-kV air discharge
	EMI - RFI	Conforms to FCC rules for a Class B computing device
	Microsoft® PC 99 - 2001	Functionally compliant
Mechanical	Keycaps	Stepped -profile design
	Switch actuation	55-g nominal peak force with tactile feedback
	Switch life	20 million keystrokes
	Switch type	Contamination-resistant switch membrane
	Key-leveling mechanisms	For all double-wide and greater-length keys
	Cable length	7 ft (2.2 m)
	Microsoft PC 99 - 2001	Mechanically compliant
	Acoustics	43-dBA maximum sound pressure level
	Operating temperature	50° to 122° F (10° to 50° C)
	Non-operating temperature	-22° to 140° F (-30° to 60° C)
Environmental	Operating humidity	10% to 95% (non-condensing at ambient)
	Non-operating humidity	0% to 95% (non-condensing at ambient)
	Operating shock	40 g, six surfaces
	Non-operating shock	80 g, six surfaces
	Operating vibration	2-g peak acceleration
	Non-operating vibration	4-g peak acceleration
	Drop (out of box)	26 in (66 cm) on carpet, six-drop sequence
	Drop (in box)	42 in (107 cm) on concrete, 16-drop sequence
Operating system support	Windows® 7, Windows Vista, Windows XP Professional	
Approvals	UL, cUL, FCC, CE, TUV GS, VCCI, BSMI, C-Tick, KCC, USB-IF, WHQL, EN/IEC 60601-1, IP66/NEMA4X	
Ergonomic compliance	ANSI HFS 100, ISO 9241-4, and TUVGS	

Technical Specifications - Input/Output Devices

HP Wireless Keyboard and Mouse

Keyboard	Dimensions (H x L x W)	1.47 x 18.06 x 6.43 in (37.3 x 458.8 x 163.2 mm)
	Weight – Without Two AA Alkaline Batteries	1.96 lb (890 g)
Mouse	Dimensions (H x L x W)	1.51 x 4.69 x 2.71 in (38.4 x 119 x 68.9 mm)
	Weight – Without Two AA Alkaline Batteries	0.17 lb (80 g)
Receiver	Dimensions (H x L x W)	0.31 x 0.72 x 2.24 in (8 x 18.4 x 57 mm)
	Weight	0.27 oz (7.6 g)
	Cable Length – Minimum	6 ft (1.8 m)
	Range	32.8 ft (10 m)
System Requirements	Windows 7 Home Basic*, Windows 7 Home Premium*, Windows 7 Professional Edition 32*, Windows 7 Professional Edition 64*, Windows 7 Ultimate Edition 32*, Windows 7 Ultimate Edition 64* Windows Vista or Windows XP	
	Available USB port for the receiver	
	CD-ROM Drive	
	*This system may require upgraded and/or separately purchased hardware and/or a DVD drive to install the Windows 7 software and take full advantage of Windows 7 functionality. See http://www.microsoft.com/windows/windows-7/ for details.	
	Product Safety	UL; CSA /TUV (Europe only); CE Mark
	Ergonomics	ANSI; ISO (Europe only); GS Mark (Germany only)
	EMC	FCC; CISPR; ACA; BSMI; MIC; VCCI
	CE Mark	EN 55022:1998; EN 55024
	Design Guidelines for PCs	PC 99 - connector overmold colors; PC 2001 - full functionality
	Telecom	All local telecom requirements and approvals for intended markets
USA	FCC Part 15 Equipment Certificate; CFR 47, Part 15; other local requirements	
	Country Support	US, Belgium, Switzerland, Spain, Denmark, Netherlands, France, Germany, Italy, Portugal, Sweden, Norway, Finland, UK, Poland, Czech Republic, Turkey, Greece, Austria, Bulgaria, Cyprus, Estonia, Hungary, Ireland, Latvia, Lithuania, Luxemburg, Malta, Romania, Slovakia, Slovenia, Vietnam, HK, Australia, NZ, Malaysia, Singapore, Indonesia, Philippines, and Thailand.

HP PS/2 Optical Mouse

Dimensions (H x L x W)	1.56 x 2.44 x 4.61 in (3.95 x 6.21 x 11.7 cm)
Weight	4.44 oz (126 g)
Operating temperature	-32° to 104°F (0° to 40° C)

Technical Specifications - Input/Output Devices

Environmental	Non-operating temperature	-4° to 140°F (-20° to 60° C)
	Operating humidity	10% to 90% (non condensing at ambient)
	Non-operating humidity	10% to 90% (non condensing at ambient)
	Operating shock	40 g, 6 surfaces
	Non-operating shock	80 g, 6 surfaces
	Operating vibration	2 g peak acceleration
	Non-operating vibration	4 g peak acceleration
Electrical	Drop (out of box)	80 cm height onto asphalt tile over concrete or equivalent, 5-drop in 5 direction except the cable face
	Operating voltage	5 VDC \pm 10%
	Power consumption	100mA
	System consumption	PS/2 mini-din connector
	ESD	CE level 4, 15 kV air discharge
	EMI-RFI	Conforms to FCC rules for a Class B computing device
	Microsoft PC99 - 2001	Functionally compliant
Mechanical	Resolution	400 \pm 20% DPI
	Tracking speed	10 in/s (25.4 cm/s) maximum
	Acceleration	100 in/s/s (2.54 m/s/s)
	Switch actuation	61 g nominal peak force
	Switch life	3,000,000 operations (using Hasco modified tester)
	Switch type	Low force micro-switches
	Tracking mechanism life	155 mi (250 km) at average speed of 10 in/s
Scroll wheel	Cable length	6 ft (1.8 m)
	Microsoft PC99 - 2001	Mechanically compliant
	Width	8 mm
	Diameter	1.01 in (25.6 mm)
	Maximum rotation speed	48 rats/sec
	Switch type	Light force micro-switch
	Switch life	1 million operations
Regulatory Approvals	Mechanical life	Minimum 200,000 revolutions
	UL, CSA, FCC, CE Mark, TUV, TUV GS, VCCI, BSMI, C-Tick, MIC	

Technical Specifications - Input/Output Devices

HP USB Optical Mouse

Dimensions (H x L x W)	1.5 x 4.5 x 2.5 in (3.8 x 11.6 x 6.3 cm)
Weight	0.27 lb (0.12 kg)
Cable length	72.8 in (185 cm)
System requirements	Available USB port

HP USB Laser Mouse

Scroll Wheel	24	
Maximum Rotation Speed	48 rats/sec	
Switch Type	Wheel	
Switch Life	Button - 3,000,000	
	Wheel - 1,000,000 times	
	Tilt switch - 500,000 times	
Environmental	Operating Temperature	32° to 104° F (0° to 40° C)
	Non-operating Temperature	-4° to 140° F (-20° to 60° C)
	Operating Humidity	10% to 90% (non-condensing at ambient)
	Non-operating Humidity	20% to 80% (non-condensing at ambient)
	Operating Shock	40 g, six surfaces
	Non-operating Shock	80 g, six surfaces
	Operating Vibration	2-g peak acceleration
	Non-operating Vibration	4-g peak acceleration
Electrical	Operating Voltage	+ 5VDC ± 5%
	Power Consumption	
	MTBF	> 150,000 hrs
	ESD	IEC-61000-4-2 criteria B, Contact discharge: +/- 4kV, Air discharge: +/- 8kV
	EMI-RFI	FCC Class B
	PC98	PC 99 Compliant
Mechanical	Resolution	800dpi
	Tracking Speed	25 cm/sec
	Acceleration	0.5mm
	Switch Actuation	0.6N (60gf)

Technical Specifications - Input/Output Devices

	Switch Life	Button - 3,000,000 Wheel - 1,000,000 times Tilt switch - 500,000 times
	Cable Length	1850mm
	PC98-99	PC99 compliant
Regulatory Approvals	UL60950-1, UL 94, UL 746 (A-E), UL 796 TUV/GS: EN 60950-1, EN 60825-1 FCC Class B, UL 1950, cUL, TUV GS, CE, C-tick, VCCI, BSMI, RRL	

HP USB PS/2 Washable Mouse

Dimensions (H x L x W) 1.56 x 2.44 x 4.61 in (3.95 x 6.21 x 11.7 cm)		
Weight	4.44 oz (126 g)	
Environmental	Operating temperature	−32° to 104°F (0° to 40° C)
	Non-operating temperature	−4° to 140°F (−20° to 60° C)
	Operating humidity	10% to 90% (non-condensing at ambient)
	Non-operating humidity	10% to 90% non-condensing
	Operating shock	40 g, 6 surfaces
	Non-operating shock	80 g, 6 surfaces
	Operating vibration	2 g peak acceleration
	Non-operating vibration	4 g peak acceleration
	Drop (out of box)	80 cm height onto asphalt tile over concrete or equivalent, 5-drop in 5 direction except the cable face
Electrical	Operating voltage	5 VDC ± 10%
	Power consumption	100mA
	System consumption	PS/2 mini-din connector or USB
	ESD	CE level 2 8 kV air discharge
	EMI-RFI	Conforms to FCC rules for a Class B computing device
	Microsoft® PC99 – 2001	Functionally compliant
Mechanical	Resolution	1000 ± 20% DPI
	Tracking speed	14 in/s (35.56 cm/s) maximum
	Acceleration	2 g
	Switch actuation	70 g nominal peak force
	Switch life	3,000,000 operations (using Hasco modified tester)
	Switch type	Low force micro-switches
	Cable length	8.8 ft total 70 cm+ 2m extension
	Microsoft PC99 – 2001	Mechanically compliant
	Width	6 mm
Scroll wheel	Diameter	1 in (25.4 mm)
	Maximum rotation speed	48 rats/sec
	Switch type	Light force micro-switch
	Switch life	3 million operations
Regulatory approvals	Mechanical life	Minimum 200,000 revolutions
	Compliant	FCC, CE Mark, ICES-003-B, IP66/NEMA4X

Technical Specifications - Input/Output Devices

Compatibility	Operating system support	Windows 7, Windows Vista Business 64*, Windows Vista Business 32*, Windows Vista Home Basic 32*, Windows 2000, Windows XP Professional or Windows XP Home 32* (No driver is required for this device. Native support is provided by the operating system.), xpe, ce.net, Linux, XP-64
		<p>* Certain Windows Vista product features require advanced or additional hardware. Windows Vista Upgrade Advisor can help you determine which features of Windows Vista will run on your computer. To download the tool, visit: http://www.windowsvista.com/upgradeadvisor. For Windows Vista system requirements, visit: http://www.windowsvista.com/systemrequirements.</p>

Technical Specifications – Power

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)* 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: 10,000 ft (3048 m) Non-operating: 30,000 ft (9144 m)

*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.

Power Supply	SFF	MT
Standard Efficiency	240W active PFC	320W active PFC
High Efficiency*	240W active PFC 87/90/87% efficient @ 20/50/100% load	320W active PFC 87/90/87% efficient @ 20/50/100% load
Operating Voltage Range	90 - 264 VAC	
Rated Voltage Range	100 - 240 VAC	
Rated Line Frequency	50/60 Hz	
Operating Line Frequency Range	47 – 63 Hz	
Rated Input Current	4A	5.5A
Rated Input Current with Energy Efficient* Power Supply	4A	5.5A
Current Leakage (NFPA 99)	< 275 µA	< 450 µA
Power Supply Fan	92mm variable speed	
Power cord length	6.0 ft. (1.83 m)	
Total Cord Length	N/A	N/A

*High efficiency power supply is a requirement for ENERGY STAR qualification in conjunction with a select range of processors and modules

Technical Specifications – Weights & Dimensions

Weights & Dimensions

(configured with 1 HDD & 1 ODD)

	SFF	MT
Chassis (H x W x D)	4.0 x 13.3 x 14.9 in 100 x 338 x 379 mm	14.9 x 7.0 x 17.0 in 377 x 177 x 431 mm
System Volume	790.3 cu in 12.8 L	1757.48 cu in 28.8 L
System Weight*	16.7 lb 7.6 kg	20.5 lb 9.3 kg
Max Supported Weight (desktop orientation)	77.0 lb 35.0 kg	N/A
Tower Stand (H x W x D)	1.1 x 7.0 x 7.9 in (29 x 178 x 200 mm)	N/A
Packaging (H x W x D)	9.0 x 19.8 x 23.4 in 229 x 500 x 594 mm	11.6 x 19.7 x 23.2 in 295 x 500 x 590 mm
Shipping Weight*	17.9 lb 8.1 kg	28.8 lb 13.1 kg
Palletization Profile	4-units per layer 10-layer max. 40-units per pallet	4-units per layer 8-layer max. 32-units per pallet

Technical Specifications – Miscellaneous Features

Management Features

- Advanced Configuration and Power Management Interface (ACPI). Allows the system to wake from a low power mode. Controls system power consumption, making it possible to place individual cards and peripherals in a low-power or powered-off state without affecting other elements of the system.
- Intel Wired for Management support; industry wide initiative to make Intel architecture based PCs, servers and mobile computers more inherently manageable out-of-the-box and over the network
- Dual State Power Button; acts as both an on/off button and a suspend-to-sleep button

Serviceability Features

- Dual colored power LED on front of computer to indicate either normal or fault condition
- Diagnostic LED Explanation Table:
 - Number of 1-second red LED blinks followed by a 2-second pause, then repeats:
 - 2 - processor thermal protection activated
 - 3 - processor not installed
 - 4 - power supply failure
 - 5 -- memory error
 - 6 - video error
 - 7 - PCA failure (ROM detected failure prior to video)
 - 8 - invalid ROM, bootblock recovery mode
 - 9 - system not fetching code
 - 10 - system hang while loading an option ROM
- System/Emergency ROM
- Flash ROM
- CMOS Battery Holder for easy replacement
- Flash Recovery with Video Configuration Record Software
- 5 Aux Power LED on System PCA
- Processor ZIF Socket for easy Upgrade
- Over-Temp Warning on Screen (Requires IM Agents)
- Clear Password Jumper
- DIMM Connectors for easy Upgrade
- Clear CMOS Button
- NIC LEDs (integrated) (Green & Amber)
- Dual Color Power and HD LED - To Indicate Normal Operations and Fault Conditions
- Color coordinated cables and connectors
- Tool-less Hood Removal
- Front power switch
- System memory can be upgraded without removing the system board or any internal components
- Tool-less Hard Drive, CD & Diskette Removal
- Green Pull Tabs, and Quick Release Latches for easy Identification

Technical Specifications – Miscellaneous Features

Additional Features

	Description
Towerable Orientation	Product can be oriented as either a desktop or a tower
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. DPS Access through F10 Setup during Boot
Drive Protection System	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 Interface in F10 setup provides confirmation of SMART IV support.

Technical Specifications - Environmental Data

Environmental Data		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:	
		System Configuration		<ul style="list-style-type: none">• US ENERGY STAR®• IT ECO declaration• EPEAT® Gold where HP registers commercial desktop products. See http://www.epeat.net for registration status in your country.• The configuration used for the Energy Consumption and Declared Noise Emissions data for the Small Form Factor Desktop model is based on a typically configured product.• The configuration used for the Energy Consumption and Declared Noise Emissions data for the Microtower Desktop model is based on a typically configured product.	
SFF	Energy Consumption		115 VAC	230 VAC	100 VAC
	Normal Operation		41.77 W	41.64 W	41.67 W
	Sleep (Energy Star® low power mode)		1.92 W	2.21 W	1.91 W
	Off		0.66 W	0.89 W	0.64 W
MT	Normal Operation		48.49 W	49.54 W	47.99 W
	Sleep (Energy Star® low power mode)		1.887 W	2.117 W	1.852 W
	Off		0.641 W	0.847 W	0.621 W
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 model.					
SFF	Heat Dissipation*		115 VAC	230 VAC	100 VAC
	Normal Operation		143 BTU/hr	142 BTU/hr	142 BTU/hr
	Sleep		6 BTU/hr	7 BTU/hr	6 BTU/hr
	Off		2 BTU/hr	3 BTU/hr	2 BTU/hr
MT	Normal Operation		166 BTU/hr	169 BTU/hr	164 BTU/hr
	Sleep		6 BTU/hr	7 BTU/hr	6 BTU/hr
	Off		2 BTU/hr	3 BTU/hr	2 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)					
(Typically configured)		Sound Power (LWAd, bels)		Sound Pressure (LpAm, decibels)	
SFF	Idle		3.8		28
	Fixed Disk (random writes)		3.9		28
MT	Idle		3.8		28



Technical Specifications - Environmental Data

Fixed Disk (random writes)	3.9	29
Longevity and Upgrading		
SFF	This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the product may include: <ul style="list-style-type: none">• Intel LGA775 processor socket• 8 USB ports• 2 empty PCI slots (2 low profile or 2 full-height with optional riser)• 1 empty PCIe x1 slot• 1 empty PCIe x16 slot• 1 internal drive slot• 1 SATA optical drive slot• 4 memory slots• 1 Serial Port (optional)• 1 external diskette drive (optional)	
MT	This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the product may include: <ul style="list-style-type: none">• Intel LGA775 processor socket• 8 USB ports• 1 empty PCI slot (w/ optional PCI riser card) , or 1 empty PCIe x16 slot (w/optional PCIe riser card)• 1 internal drive slot• 1 Slimline optical drive slot• 3 memory slots• 1 Serial/Parallel Port (optional) 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: <ul style="list-style-type: none">• Mercury greater the 5ppm by weight• Cadmium greater than 10ppm by weigh Battery size: CR2032 (coin cell) Battery type: Lithium	
Longevity and Upgrading		
SFF	<ul style="list-style-type: none">• This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2002/95/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 (EPEAT) standard at the Gold where HP registers commercial desktop products. See http://www.epeat.net for registration status in your country.• Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.• This product contains 3.5% post-consumer recycled plastic (by wt.)	

Technical Specifications - Environmental Data

- This product is 93.82% recyclable when properly disposed of at end of life.

MT

- This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2002/95/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 (EPEAT) standard at the Gold where HP registers commercial desktop products. See <http://www.epeat.net> for registration status in your country.
- Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.
- This product contains 5.6% post-consumer recycled plastic (by wt.)
- This product is 94.78% recyclable when properly disposed of at end of life.

Packaging Materials

SFF

- External:
 - PAPER/Corrugated 2300 g
- Internal:
 - PLASTIC/Polyethylene low density 56 g
 - PLASTIC/EPS (Expanded Polystyrene) 63.4 g
 - PLASTIC/Polypropylene 15 g
- The corrugated packaging material contains at least 30.66% recycled content.
- The PLASTIC/Polyethylene low density packaging material contains at least 5% recycled content.
- The PLASTIC/EPS (Expanded Polystyrene) packaging material contains at least 5% recycled content.
- The PLASTIC/Polypropylene packaging material contains at least 5% recycled content.

MT

- External:
 - PAPER/Corrugated 2278 g
- Internal:
 - PLASTIC/EPS (Expanded Polystyrene) 114 g
 - PLASTIC/Polyethylene low density 56 g
 - PLASTIC/Polypropylene 15 g
- The PAPER/Corrugated packaging material is made from 30.6% recycled content.
- The PLASTIC/EPS (Expanded Polystyrene) material is made from at least 0% recycled content.
- The PLASTIC/Polyethylene low density packaging material contains at least 0% recycled content.
- The PLASTIC/EPS (Expanded Polystyrene) packaging material contains at least 0% recycled content.

RoHS Compliance	Hewlett-Packard is committed to compliance with all applicable environmental laws and regulations, including the European Union Restriction of Hazardous Substances (RoHS) Directive. HP's goal is to exceed compliance obligations by meeting the requirements of the RoHS Directive on a worldwide basis. By July 1, 2006, RoHS substances will be virtually eliminated (virtually = to levels below legal limits) for all HP electronic products subject to the RoHS Directive, except where it is widely recognized that there is no technically feasible alternative (as indicated by an exemption under the EU RoHS Directive).
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

Technical Specifications - Environmental Data

Environment at:

http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html):

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants - may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- 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 (PBEBs)
- 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

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

Hewlett-Packard 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.

Technical Specifications - Environmental Data

**Hewlett-Packard
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://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html>
ISO 14001 certificates:
<http://www.hp.com/hpinfo/globalcitizenship/environment/operations/envmanagement.html>

After-Market Options (availability may vary by region)

Communication Devices	Part Number
Intel Gigabit CT Desktop NIC (PCIe x1)	FH969AA
Broadcom NetXtreme GbE Ethernet Plus NIC (PCIe x1)	FS215AA
HP Wireless 802.11 b/g/n NIC (PCIe x1)	FH971AA

Graphics Solutions	Part Number
AMD Radeon HD 6350 Graphics (PCIe x16)	QK638AA
AMD Radeon HD 7450 Graphics Card	B1R44AA
Nvidia NVS 300 Graphics (PCIe x16)	BV456AA
Nvidia NVS 310 Graphics (PCIe x16)	A7U59AA
HP DisplayPort Cable Kit	VN567AA
HP DisplayPort To Dual Link DVI-D Adapter	NR078AA
HP DisplayPort To DVI-D Adapter	FH973AA
HP DisplayPort to HDMI Adapter	BP937AA
HP DisplayPort to VGA Adapter	AS615AA
HP DMS-59 to Dual DVI Cable	DL139A
HP DMS-59 to Dual DisplayPort Adapter	XP688AA

Data Storage Drives and Accessories	Part Number
HP 300GB 10K rpm SATA 3.0Gb/s 2.5" Hard Disk Drive Includes 3.5"adapter	FM802AA
HP 500-GB 7.2K rpm SATA 6.0Gb/s 3.5" Hard Disk Drive	QK554AA
HP 1-TB 7.2K rpm SATA 6.0Gb/s 3.5" Hard Disk Drive	QK555AA
HP 160-GB SATA 3.0Gb/s Solid State Drive	QV064AA*
	*Not available in all regions.
HP eSATA Adapter	FH966AA
HP Removable SATA Hard Drive Enclosure (frame & carrier)	RY102AA
HP Removable SATA Hard Drive Enclosure (carrier only)	RY103AA

After-Market Options (availability may vary by region)

Input Devices

	Part Number
HP PS/2 Standard Keyboard	DT527A
HP USB Standard Keyboard	DT528A
HP USB Keyboard with USB ports	BT330AA
HP USB Gray Keyboard	DT529A
HP USB Smart Card (CCID) Keyboard	BV813AA
HP USB Keyboard and Mouse Kit	RC465AA
HP USB Washable Keyboard	VF097AA
HP USB and PS/2 Washable Mouse	BM866AA
HP USB and PS/2 Washable Keyboard and Mouse Kit	BU207AA
HP PS/2 Optical Mouse	EY703AA
HP USB Optical Mouse	DC172AT
HP USB Laser Mouse	GW405AT
HP USB Travel Mouse	RH304AA
HP Wireless Keyboard and Mouse Combination	NB896AA

System Memory

	Part Number
HP 2GB DDR3-1600 (PC3-12800) DIMM	B4U35AA
HP 4GB DDR3-1600 (PC3-12800) DIMM	B4U36AA
HP 8GB DDR3-1600 (PC3-12800) DIMM	B4U37AA

Multimedia Devices

	Part Number
HP Thin USB Powered Speakers	KK912AA
HP DVD-ROM Drive	AR629AA
HP SuperMulti DVD Writer Drive	AR630AA
HP Blu-ray Writer Drive	AR482AA
HP USB HD 720P Business Webcam	QP896AA
HP Business Headset	QK550AA

Removable Media Storage

	Part Number
HP USB External Diskette Drive	DC141B
HP 22-n-1 Media Card Reader	AR941AA

Security Devices

	Part Number
HP/Kensington MicroSaver Cable Lock	PC766A
HP Business PC Security Lock	PV606AA
HP SFF Solenoid Lock and Hood Sensor	BP428AA
HP MT Solenoid Lock and Hood Sensor	DE618A
HP SFF Wall Mount/Security Sleeve	VN570AA
HP Keyed Lock Cable	BV411AA

After-Market Options (availability may vary by region)

Stands and Accessories

	Part Number
HP Integrated Work Center Stand (SFF)	QP897AA
HP SFF Tower Stand	VN569AA
HP Serial Port Adapter (RS-232 compatible)	PA716A
HP Parallel Port Adapter	KD061AA
HP 5.25" Blank Bezel Kit (50 pack)	DC177B
HP FireWire IEEE 1394 Card	PA997A

LANDesk Software (E-Delivery)

	Part Number
LANDesk Management Suite License - 1-499 Nodes E-Delivery	QY369AAE
LANDesk Management Suite License - 500-999 Nodes E-Delivery	QY370AAE
LANDesk Management Suite License - 1000-1999 Nodes E-Delivery	QY371AAE
LANDesk Management Suite License - 2000-4999 Nodes E-Delivery	QY372AAE
LANDesk Management Suite License - 5000-9999 Nodes E-Delivery	QY373AAE
LANDesk Security Suite License E-Delivery	QY379AAE
LANDesk Management Suite 1 Year Maintenance - 1-499 Nodes E-Delivery	HZ825AAE
LANDesk Management Suite 1 Year Maintenance - 500-999 Nodes E-Delivery	HZ826AAE
LANDesk Management Suite 1 Year Maintenance - 1000-1999 Nodes E-Delivery	HZ827AAE
LANDesk Management Suite 1 Year Maintenance - 2000-4999 Nodes E-Delivery	HZ828AAE
LANDesk Management Suite 1 Year Maintenance - 5000-9999 Nodes E-Delivery	HZ829AAE
LANDesk Security Suite 1 Year Subscription	HZ830AAE
LANDesk Patch Management 1 Year Subscription - 1-499 Nodes E-Delivery	HZ831AAE
LANDesk Patch Management 1 Year Subscription - 500-999 Nodes E-Delivery	HZ832AAE
LANDesk Patch Management 1 Year Subscription - 1000-1999 Nodes E-Delivery	HZ833AAE
LANDesk Patch Management 1 Year Subscription - 2000-4999 Nodes E-Delivery	HZ834AAE
LANDesk Patch Management 1 Year Subscription - 5000-9999 Nodes E-Delivery	HZ835AAE

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May 2012

Overview

Models

HP Smart Card CCID Keyboard

BV813AA#xxx

Introduction

Boost your security, simplify access procedures and reduce the costs associated with managing networks by preventing unauthorized access to your computers and networks using smartcard technology with the HP Smart Card CCID Keyboard.

The HP Smart Card CCID Keyboard includes Circuit(s) Cards Interface Device (CCID), the new standard for Smartcard keyboards. It is an approach to Smartcard reader communication, a standard communication protocol for smart card readers/keyboards that connect to a computer via USB with the computer.

Standard device drivers from Microsoft are included within Microsoft Windows 7 and Windows Vista, which allow the keyboard to simply integrate with the PC. The keyboard is also compatible with Windows XP, and users will need to install the XP drivers to the PC from CD that is included.

The USB Smart card CCID Keyboard is a full-sized keyboard that takes advantage of digital signatures and certificates to secure the environment for transactions performed on both public and private networks. The USB Smart Card CCID Keyboard works with all smartcards that comply with ISO standard 7816.

Smart Cards are easy-to-use credit card-sized devices which require multiple forms of information to be validated before you gain access to your accounts or resources. Used worldwide, smartcards strengthen access to a network or other resource using dual-factor authentication. Implementing a two-factor authentication (or multi-factor authentication) process reduces the risk of unauthorized access by verifying and validating your identity in one of the following ways:

- Something you know – a combination of username and password or pin
- Something you have – a Smart Card or security token.

Something you have (Smart Card) plus something you know (pin), improves user-access security within corporate network environments. Smart Cards are used in government agencies, healthcare companies and the finance industry.

HP ProtectTools Smart Card Manager provides authentication software for the Smart Card. The Smart Card Reader module works with the HP ProtectTools Security Manager and enables the user to setup, use, and manage the Smart Card. This allows strengthened security with HP patented technology.

Key Benefits

- Protects against unauthorized access with smartcard technology
- Delivers even greater security when combined with a HP ProtectTools Smart card and the HP ProtectTools Security Software
- Combination of username and password or pin with a Smart Card or security token
- Secures online transactions using digital signatures and certificates
- Conforms to industry standards for ease of setup and use
- Delivers long product life and quiet operation with high-impact materials and lubricated keys
- Spill drain feature

Overview

Compatibility

The HP Smart Card CCID Keyboard is compatible with TBD the HP Compaq 6000 Pro MT, HP Compaq 6000 Pro SFF, HP Compaq 6000 Pro AIO, HP Compaq 6005 Pro MT, HP Compaq 6005 Pro SFF, HP Compaq 6005 Pro USDT, HP Compaq dc7900 CMT, HP Compaq dc7900 CMT, HP Compaq dc7900 USDT, HP Compaq 8000 Elite SFF, HP Compaq 8000 Elite CMT, HP Compaq 8000 Elite USDT, HP Compaq 8000f Elite USDT, HP Compaq 8100 Elite SFF, HP Compaq 8100 Elite CMT, HP Pro 2000 MT Business PC, HP Pro 2110 SFF Business PC, HP Pro 3000 MT/SFF Business PC, HP Pro 3005 MT/SFF Business PC, HP Pro 3010 MT/SFF Business PC, HP Pro 3110 SFF Business PC, HP Pro 3110 SFF Business PC, HP Pro 3110 MT Business PC, HP Pro 3115 SFF Business PC, HP Pro 3115 MT Business PC, HP Pro 3120 SFF Business PC, HP Pro 3125 MT Business PC, HP Pro 3130 SFF Business PC, and HP Pro 3130 MT Business PC.

NOTE: Not all models are available in all regions.

Service and Support

Your Option Limited Warranty is a one (1) year (HP Option Limited Warranty Period) parts replacement warranty on any HP-branded or Compaq-branded options (HP Options). If your HP Option is installed in an HP Hardware Product, HP may provide warranty service either for the HP Option Limited Warranty Period or the remaining Limited Warranty Period of the HP Hardware Product in which the HP Option is being installed, whichever period is the longer but not to exceed three (3) years from the date you purchased the HP Option.

Technical Specifications

Physical characteristics	Keys	104, 105, 106, 107, 109 layout (depending upon country)
	Form factor	USB basic Smart Card keyboard
	Colors	Carbonite/Silver
	Dimensions (H x W x D)	18.2 x 6.3 x 1.3 in (46.3 x 16.1 x 3.3 cm)
	Weight	2 lb (0.9 kg) minimum
Electrical	Operating voltage	+ 5VDC ± 5%
	Power consumption	100-mA maximum (with four LEDs ON)
	System interface	USB Type A plug connector
	ESD	CE level 4, 15-kV air discharge
	EMI - RFI	Conforms to FCC rules for a Class B computing device
Mechanical	Microsoft PC 99 - 2001	Functionally compliant
	Languages	30+ available
	Keycaps	Standard design
	Switch actuation	55 g nominal peak force with tactile feedback
	Switch life	20 million keystrokes (using Hasco modified tester)
	Switch type	Contamination-resistant membrane
	Key-leveling mechanisms	For all double-wide and greater-length keys
	Cable length	6 ft (1.8 m)
	Microsoft PC 99 - 2001	Mechanically compliant
	Acoustics	43-dBA maximum sound pressure level
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	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)	42 in (107 cm) on concrete, 16-drop sequence
SMARTCARD function	Support	All ISO 7816 smart cards
	Interface	Reads from and writes to all ISO7816-1, 2, 3, 4 memory and microprocessor smart cards (T=0, T=1)
	Chipset	SCM STCIII
	Standard APIs supported	PC/SC, EMV2000, CT-API
	Power	USB Port
		Short circuit detection (protects smart card and reader)
		Power supply compliant with ISO7816 and EMV (5V, 60 mA)
		Supports 3-V and 5-V cards
	Power consumption	100-mA maximum draw

Technical Specifications

	Communication	From card	9600 bps to 330,000 bps
		From computer	12 Mbps (USB transfer speed)
	Landing mechanism	Contact device	Friction contact
		Card insertions rating	Up to 100,000 insertion cycles
	Interface modes	CCID protocol	
		SCM proprietary extensions	
	Reader performance interface	USB connection	
	Electro-magnetic standards	Europe	2004/108/EC
		USA	USAFCC part 15
Operating system support	Windows 7 Home Basic*, Windows 7 Home Premium*, Windows 7 Professional Edition 32*, Windows 7 Professional Edition 64*, Windows 7 Ultimate Edition 32*, Windows 7 Ultimate Edition 64*, Windows Vista Business 64**, Windows Vista Business 32**, Windows Vista Home Basic 32**		
	<p>* This system may require upgraded and/or separately purchased hardware and/or a DVD drive to install the Windows 7 software and take full advantage of Windows 7 functionality. See http://www.microsoft.com/windows/windows-7/ for details.</p> <p>** Certain Windows Vista product features require advanced or additional hardware. Windows Vista Upgrade Advisor can help you determine which features of Windows Vista will run on your computer. To download the tool, visit: http://www.windowstvista.com/upgradeadvisor. For Windows Vista system requirements, visit: http://www.windowstvista.com/systemrequirements.</p>		
Approvals	CE-Mark, UL, CSA, FCC, CE Mark, TUV, TUV GS, VCCI, BSMI, C-Tick, MIC, EMV2000, USB-IF		
Ergonomic compliance	ISO 9241-4, TUVGS		
Kit contents	Keyboard, I/O Security and Documentation CD, warranty card		
Smart card compatibility	HP	HP ProtectTools Smart Card	
	American Express	Amex Blue	
	Axalto (Schlumberger)	Cryptoflex 8K	
		Cryptoflex 16K	
		Cryptoflex 32K	
		Cryptoflex 32K e-gate	
		Cyberflex Access 64K	
		Cyberflex Access 32K	
		Cyberflex 32K e-gate	
		Cyberflex 64K	
		Cyberflex Palmera	
		Payflex-S	
		Payflex 1K	
		Payflex 2K	
		Payflex 4K	
		Payflex 8K	
		Prismera	
		US DoD CAC	
	Cardlogix	CLXSU004KK4	
		CLXSU008KK5	
	Safenet, Inc.	Model 300	
		Model 330	
	De La Rue Gemplus	VisaCash	
		Gem Espresso	
		GKK32K	
		Gemclub Memo	

Technical Specifications

	GemClub Micro GemXplore GemSafe
Infineon	SLE66C322P
SafLink (Litronic)	Forte
Sharp	Java Card
Oberthur	CosmopolIIC v4 CosmopolIIC v4.1 Cosmo ID-One GalatIIC v2.1 US DoD CAC
Memory Cards	
Atmel	AT24C01ASC AT24C02SC AT24C04SC AT24C08SC AT24C16SC AT24C32SC AT24C64SC AT24C128SC AT24C256SC AT24C512SC AT88SC153 AT88SC1608
Axalto (Schlumberger)	PrimeFlex Store 8K PrimeFlex Store 2K
Infineon	SLE4406 SLE4406E SLE4406E SE SLE4418 SLE4428 SLE4432 SLE4436E SLE4442 SLE5536
ISSI	IS23SC4418 IS23SC4428
ST	14C02
Telefonkarte	SLE4406 SLE4436 SLE5536
XICOR	X24026

Technical Specifications

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Microsoft and Windows are US registered trademarks of Microsoft Corporation.

Overview

Models

HP USB Laser Mouse

GW405AA

Introduction

The HP USB Laser Mouse provides the speed and accuracy of laser tracking in a simple, elegant design. It records motion precisely on a variety of surfaces using the latest laser sensing technology from Avago.

The HP USB Laser Mouse has no ball or moving parts, which improves its durability, makes it require less cleaning, and eliminates sticking. The mouse's comfortable, contoured shape fits either hand. It can also work on variety of surfaces. The wheel can be moved slowly in incremental ratchets, or quickly with a single, sweeping motion of the finger to rapidly advance through multiple ratchets. The wheel also functions as a third button when it is activated by pressing it.

Key Benefits

- Improves precision by using laser tracking
 - Provides more durability and easier maintenance by eliminating moving parts
 - Fits either hand
-

Compatibility

The HP USB Laser Mouse is compatible with HP dx2200, dx2250, dx2300, dx7400, dc5800 and dc7800 series, Business PCs as well as HP xw4550, xw4600, xw6600, xw8600 and xw9400 workstations.

Service and Support

Your Option Limited Warranty is a one (1) year (HP Option Limited Warranty Period) parts replacement warranty on any HP-branded or Compaq-branded options (HP Options). If your HP Option is installed in an HP Hardware Product, HP may provide warranty service either for the HP Option Limited Warranty Period or the remaining Limited Warranty Period of the HP Hardware Product in which the HP Option is being installed, whichever period is the longer but not to exceed three (3) years from the date you purchased the HP Option.

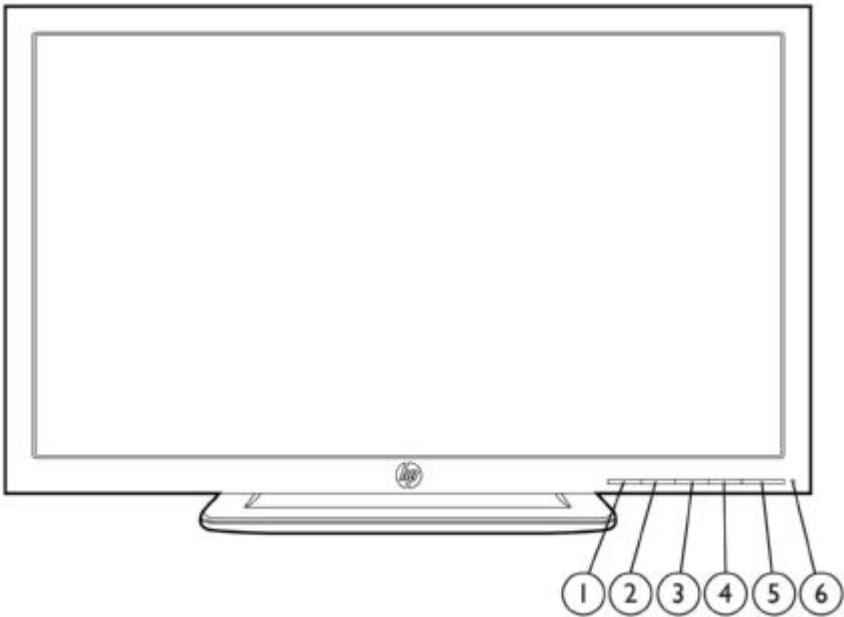
Technical Specifications

Dimensions (HxLxW)	1.53 x 4.6 x 2.44 in (39 x 117 x 62 mm)		
Weight	3.33 oz (94g)		
Cable length	6 feet (185 cm)		
Tracking	Laser optics resolution	Typical	800 dpi
		Max	10 inches/sec (25 cm/sec)
	Accuracy	± 15%	
	Orthogonality	± 10%	
	Hysteresis	± 10%	
	Backlash	± 2%	
Environmental	Operating temperature	32° to 104° F (0° to 40° C)	
	Non-operating temperature	-40° to 158° F (-40° to 70° C)	
	Operating humidity	10% to 90% (non condensing at ambient)	
Power Rating	Supply Voltage	Min-4.25v, Typ-5.0v, Max-5.25v	
	Supply Current	Max-100mA	
	Suspend Current	Max-0.5mA	
System requirements	Windows Vista Business 64*, Windows Vista Business 32*, Windows Vista Home Basic 32*, Windows 2000, Windows XP Professional or Windows XP Home 32* (No driver is required for this device. Native support is provided by the operating system.), xpe, ce.net, Linux, XP-64.		
<p>* Certain Windows Vista product features require advanced or additional hardware. Windows Vista Upgrade Advisor can help you determine which features of Windows Vista will run on your computer. To download the tool, visit http://www.windowsvista.com/upgradeadvisor. For Windows Vista system requirements, visit: http://www.windowsvista.com/systemrequirements.</p>			

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Overview



1. Menu	Opens, selects or exits the OSD menu.	4. OK/auto	If the OSD menu is on, press to select the highlighted menu item. If the OSD menu is inactive, press to activate the auto adjustment feature to optimize the screen image.
2. Minus	If the OSD menu is on, press to navigate backward through the OSD menu and decrease adjustment levels.	5. Power	Turns the monitor on or off.
3. Plus/source	If the OSD menu is on, press to navigate forward through the OSD menu and increase adjustment levels. If the OSD menu is inactive, press to activate the source button that chooses the video signal input (VGA, DVI, or DisplayPort).	6. Power LED	Blue = Fully powered. Amber = Sleep mode. Flashing Amber = Sleep Timer mode.

Model
XN374A*

Technical Specifications

Panel	Type	TN (Twisted Nematic) LED Backlit LCD
	Viewable Image Area (diagonal)	50,8 cm. (20.0 in.) widescreen; diagonally measured
	Screen Opening (W x H)	44,28 x 24,91 cm. (17.43 x 9.81 in.)
	Aspect Ratio	16:9
	Viewing Angle (typical)	Up to 170° horizontal/160° vertical (10:1 minimum contrast ratio)
	Brightness (typical)*	250 nits (cd/m ²)
	Contrast Ratio (typical)*	1000:1
	Dynamic Contrast Ratio (typical)*	1,000,000:1
	Response Time (typical)*	5 ms (on/off)
	Pixel Pitch	0.277 mm
	Backlight Lamp Life (to half brightness)	30,000 hours minimum
	Color Support	Over 16 million colors (through FRM)
	Color Gamut (typical)	68%
	*All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.	
On Screen Display (OSD) Controls	Buttons or Switches	"Menu" "-" "+" "OK" "Power"
	Languages	English, French, German, Italian, Dutch, Spanish, Japanese, Portuguese, Traditional Chinese, and Simplified Chinese
	User Controls	Brightness, contrast, positioning, color temperature (warm, standard, cool, custom), image control (clock, clock phase, scaling, sharpness, DCR), monitor management, source control, information and factory reset
Signal Interface/ Performance	Horizontal Frequency	24 to 83 kHz
	Vertical Frequency	50 to 76 Hz
	Native Resolution	1600 x 900 @ 60 Hz
	Preset VESA Graphic Modes (non-interlaced)	1600 x 900 @ 60 Hz
		1440 x 900 @ 60 Hz
		1280 x 1024 @ 60 Hz
		1280 x 720 @ 60 Hz
		1024 x 768 @ 60 Hz
		800 x 600 @ 60 Hz
		720 x 400 @ 70 Hz
		640 x 480 @ 60 Hz
	Text Mode	720 x 400 @ 70 Hz
	Maximum Pixel Clock Speed	170 MHz (VGA/DVI); 110 MHz (DisplayPort)
	User Programmable Modes	Yes (10)
	Anti-Glare	Yes
	Default Color Temperature	Warm (6500K)
Video/Other Inputs	Plug and Play	Yes



Technical Specifications

Power	Input Connectors	VGA (analog), DVI-D and DisplayPort w/ HDCP, USB	
	Input Impedance	75 Ohms (VGA)	
	Sync Input	TTL separate synch	
	Video/Other Cables	(1) (1) DVI-D cable, (1) VGA cable, (1) USB cable	
	Cable Lengths	1,8 m. (5.9 ft.)	
	Input Power	100 - 240 VAC, 50/60 Hz	
	Typical Power Consumption	26 W	
	Maximum	34 W	
	Power Saving	< 0.5 W standby; < 0.5 W off	
Mechanical	Power Cable Length	1,9 m. (6.2 ft.)	
	Dimensions (W x D x H)	Unpacked w/stand	48,36 x 21,13 x 31,63 to 41,80 cm. (19.04 x 8.32 x 12.45 to 16.46 in.)
		Unpacked w/o stand (head only)	48,36 x 4,75 x 29,57 cm. (19.04 x 1.87 x 11.64 in.)
		Packaged	55,20 x 44,50 x 16,90 cm. (21.73 x 17.52 x 6.65 in.)
	Weight	Head Only	3,38 kg. (7.45 lb.)
		Unpacked	5,48 kg. (12.1 lb.)
		Packaged	7,58 kg. (16.7 lb.)
	Tilt Range	-5° to +30°	
	Swivel Range	Yes 360°	
Environmental	Height Adjustable	Yes - from 0 to 13,0 cm. (0 to 5.1 in.)	
	Pivot Rotation	Yes	
	Base	Detachable, ships attached	
	Temperature - Operating	5° to 35° C (41° to 95° F)	
	Temperature - Non-operating	-20° to 60° C (-4° to 140° F)	
	Humidity - Operating	20% to 80% non-condensing	
	Humidity - Non-operating	5% to 95%, 38.7° C max wet-bulb	
	Altitude - Operating	0 to 5000 m. (16,400 ft.)	
	Altitude - Non-operating	0 to 12192 m. (40,000 ft.)	
Environmental Data	White LED Backlights	Yes	
	CCFL Panel	No	
	Arsenic-Free Glass⁴	Yes	
	BFR/PVC Free	Plastics and Finishes or Paint	
	Mercury Free	Yes	
	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:	
		<ul style="list-style-type: none"> ● US Energy Star® ● IT ECO declaration ● EPEAT® Gold where HP registers commercial display products. 	
		See http://www.epeat.net for registration status in your country.	

Technical Specifications

Energy Consumption (in accordance with US Energy Star test method)	115VAC, 60Hz	230VAC, 50Hz	100VAC, 60Hz
Normal Operation	21.65 W	21.5 W	21.56 W
Sleep	0.41 W	0.41 W	0.43 W
Off	0.34 W	0.34 W	0.38 W

Heat Dissipation*	115VAC, 60 Hz	230VAC, 50 Hz	100VAC, 60 Hz
Normal Operation	74 BTU/hr	73 BTU/hr	74 BTU/hr
Sleep	1.4 BTU/hr	1.4 BTU/hr	1.4 BTU/hr
Off	1.1 BTU/hr	1.1 BTU/hr	1.2 BTU/hr

* Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

- Additional Information
- This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2002/95/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 (EPEAT®) standard at the Gold level, see www.epeat.net
 - Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.
 - This product contains 0.14% post-consumer recycled plastic (by wt.)
 - This product is 98.0% recycle-able when properly disposed of at end of life.

Packaging Materials	External:	Corrugated carton	1300g
	Internal:	Polyethylene low density	32g

RoHS Compliance

Hewlett-Packard is committed to compliance with all applicable environmental laws and regulations, including the European Union Restriction of Hazardous Substances (RoHS) Directive. HP's goal is to exceed compliance obligations by meeting the requirements of the RoHS Directive on a worldwide basis. By July 1, 2006, RoHS substances will be virtually eliminated (virtually = to levels below legal limits) for all HP electronic products subject to the RoHS Directive, except where it is widely recognized that there is no technically feasible alternative (as indicated by an exemption under the EU RoHS Directive).

Material Usage

This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at: http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html):

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants - may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde

Technical Specifications

- 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 (PBEBs)
- 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

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

Hewlett-Packard 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.

Hewlett-Packard 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://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html>

ISO 14001 certificates:

<http://www.hp.com/hpinfo/globalcitizenship/environment/operations/envmanagement.html>

Options

HP Single Monitor Arm The flexible design of the HP Single Monitor Arm provides a seemingly



Technical Specifications

(sold separately)	Part number BT861AA	endless range of display adjustments with an amazing 13 inches of lift, 50 degrees of tilt, and 360 degrees of pan and rotation - all at your fingertips -- helping you stay comfortable and productive throughout the day.
	HP Adjustable Dual Display Stand Part Number AW664AA	Premium space-saving dual screen solution provides access to more monitor real estate and makes it possible to manage multiple applications simultaneously. Weight adjustable for dual monitors from 17-24". Rotate displays into portrait/landscape positions.
	HP LCD Speaker Bar Part number NQ576AA	Powered directly by the connected PC, the Speaker Bar seamlessly attaches to the monitor's lower bezel to bring full audio support to select HP flat panel monitors. Features include dual speakers with full sound range and dual external headphone jacks.
	HP LCD Monitor Quick Release Part number EM870AA¹	An easy-to-use, VESA-compliant, LCD monitor mounting solution that allows you to quickly and securely attach an LCD monitor to a variety of stands, brackets, arms or wall mounts.
	HP Integrated Work Center Stand—Part number LH526AA	Allows mounting of a 17 - 24 inch (43.18- to 60.96 cm) diagonal HP LCD monitor and an HP Compaq 8000 series Ultra-slim Desktop PC as well as select HP Thin Clients on a single stand for the convenience of an "all-in-one" form factor. For more information, refer to this product's QuickSpecs document.
	HP Integrated Work Center for Small Form Factor—Part number QK549AT	Allows mounting of a 17- to 24-inch (43.18 to 60.96 cm) diagonal HP LCD monitor with an HP Compaq Small Form Factor Desktop PC. This compact system configuration saves you valuable desktop room to make the most of a space-constrained office environment.
	HP USB Graphics Adapter Part number NL571AA	Enables connection of up to six simultaneous displays to help you boost productivity and multi-task across several open applications. Use one Adapter to bridge between a notebook or desktop PC and second monitor or use multiple Adapters to connect several displays to each other.
	HP Business PC Security Lock Kit Part number PV606AA	Attaches to the rear of the PC with a six-foot steel cable that can be used to secure a PC or peripherals such as mice, keyboards, monitors or USB security devices to protect them against unauthorized removal by physically connecting the system to an anchor point.
	HP DisplayPort Cable Kit Part number VN567AA	Connects a DisplayPort connector on an HP Business Desktop computer to a DisplayPort connector on a monitor.
Other	Accessories Included	AC Power cable, VGA cable, DVI-D cable, USB cable
	Software	Yes - HP Display Asst, Auto Adjustment Pattern Utility, Monitor Driver, PDF Complete (v35109 rc4)
	User Guide Languages	English, Danish, Dutch, Finnish, French, German, Italian, Norwegian, Spanish (International), Swedish, Czech, Greek, Hungarian, Polish, Russian, Slovenian, Turkish, Arabic, Portuguese (Brazilian), Bahasa Indonesia, T. Chinese, S. Chinese, Japanese
	Warranty Languages	English, German, French, Italian, Turkish, Greek, Arabic, Hungarian, Czech, Russian, Polish, Japanese, Dutch, Danish, Finnish, Portuguese, Norwegian, Swedish, T. Chinese, Korean, Slovenian, Bahasa, Spanish
	Color	Black
	VESA External Mounting	Yes (one set of standard 4-hole pattern, 100 mm).
	Security Lock-Ready	Yes
Certification and Compliance		TCO 5.0, VCCI, KC, CECP, FCC, CE, BSMI, ISC, C-Tick, Gost, E-Standy, RoHS, WEEE, ETL, CCC, Energy Star® 5.0, NOM, KCC, BSMI, TUV, Microsoft WHQL, China Energy Label Grade 1, EPEAT® Gold ³

Technical Specifications

Compatibility	Recommended for use with HP products.
Service and Warranty	Protected by HP, including a 3 years parts, 3 years labor, and 3 years onsite service (3/3/3) standard limited warranty. Certain restrictions and exclusions apply. ²

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¹ The HP Quick Release has been designed to support a maximum of up to 24 lbs (10.9 kg) for all devices mounted. Because mounting surfaces vary widely and the final mounting method and configuration may vary, mounting fasteners are not supplied (other than the VESA-compliant screws). HP recommends that you consult with a qualified engineering, architectural or construction professional to determine the appropriate type and quantity of mounting fasteners required for your application and to ensure that your mounting solution is properly installed to support applied loads.

² HP Care Pack Services extend service contracts beyond the standard warranties. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts from date of hardware purchase. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at:

<http://www.hp.com/go/lookuptool>. Additional HP Care Pack Services information by product is available at:

<http://www.hp.com/hps/carepack>.

³ EPEAT Gold where HP registers commercial display products. See www.epeat.net for registration status in your country.

⁴ Arsenic and its compounds were not detected using US EPA Test Methods 3052 & 3052/6010b by ICP or ICP-AES.

All specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Overview - HP DisplayPort to HDMI Adapter

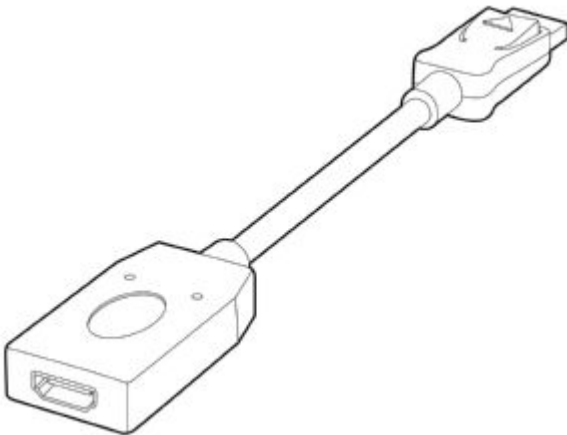
Models

HP DisplayPort to HDMI Adapter	BP937AA
HP DisplayPort to DVI-D Adapter	FH973AA
HP DisplayPort to VGA Adapter	AS615AA
HP DisplayPort Cable Kit	VN567AA
HP DisplayPort to Dual Link DVI-D Adapter	NR078AA

HP DisplayPort to HDMI Adapter

Model

Converts the DisplayPort connector on a HP Compaq Business Desktop computer or HP Workstation to a HDMI port. The adapter has a latching DisplayPort connector on one end and HDMI connector on the other for connecting to a HDMI monitor cable.



HP DisplayPort to HDMI Adapter

NOTE: The DisplayPort connector should be attached to the graphics card's DisplayPort connector on the HP Compaq Business Desktop computer or HP Workstation, and the HDMI connector should only be attached to the monitor HDMI input connector using a HDMI cable.

Key Benefits

- Converts a graphics card's DisplayPort output to a HDMI output for use with a HDMI monitor.
- 8.0 in (20.0 cm) approximate lenght
- Latching DP connector for a secure connection

Overview - HP DisplayPort to HDMI Adapter

Compatibility

The HP DisplayPort to HDMI Adapter supports the products listed below if they have a DisplayPort connector in the back of the system or if they have a graphics card installed that has a DisplayPort connector. DisplayPort outputs are sometimes notated by the DP++ icon. It supports all HP monitors that feature a HDMI interface.

HP Compaq dx2390, dx2400, dx2450, dx7400, dc5800, dc5850, dc7800 and dc7900 Business Desktop PCs, HP Compaq 6000 Pro Microtower, HP Compaq 6000 Pro Small Form Factor, HP Compaq 6005 Pro Microtower and HP Compaq 6005 Pro Small Form Factor, HP Compaq 6200 Pro Microtower, HP Compaq 6200 Pro Small Form Factor, HP Compaq 6300 Pro Microtower, HP Compaq 6300 Pro Small Form Factor, HP Compaq 8200 Elite Small Form Factor, HP Compaq 8200 Elite Convertible Minitower, HP Compaq 8200 Elite Microtower, HP Compaq 8200 Elite Ultra-Slim Desktop, HP Compaq 8300 Elite Convertible Minitower, HP Compaq 8300 Elite Microtower, HP Compaq 8300 Elite Small Form Factor, HP Compaq 4300 Pro Small Form Factor Business Desktop PCs.

HP xw4600, xw9400, Z400, Z600 and Z800 Workstations, HP TouchSmart 9100.

NOTE: Not all models are available in all regions.

Spares information

HP DisplayPort to HDMI Adapter

617450-001

Service and Support

The DisplayPort to HDMI Adapter has either a one-year limited warranty or the remainder of the warranty of the HP product in which it is installed. Technical support is available seven days a week, 24 hours a day, by phone, as well as online support forums. Certain restrictions and exclusions apply.

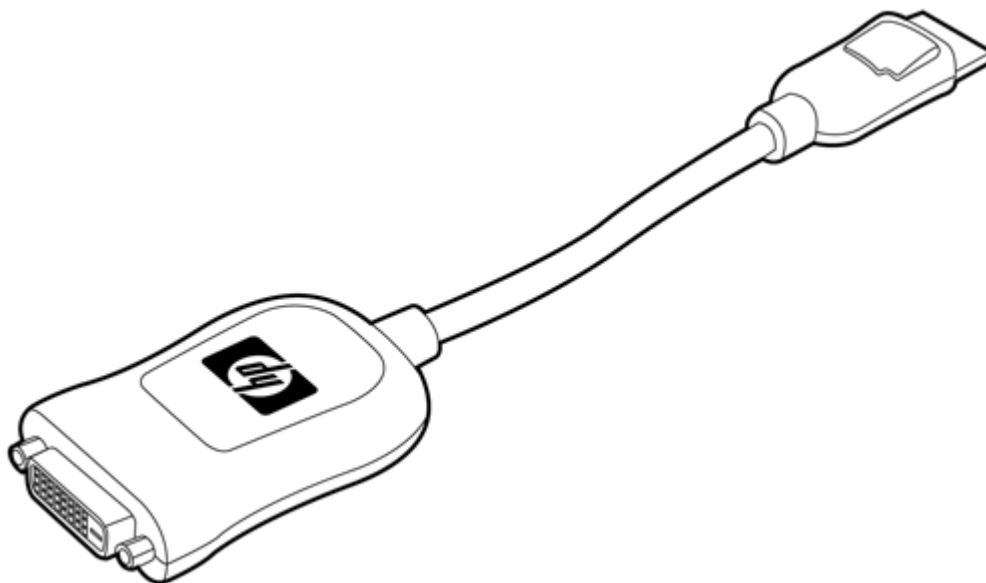
Technical Specifications

Connectors	DisplayPort plug and HDMI receptacle
Adapter length (approximate)	8.0 in (20.0 cm)
Adapter weight	0.10 lbs (0.05 kg)
Option kit contents	HP DisplayPort to HDMI Adapter, documentation

Overview - DisplayPort to DVI-D Adapter

HP DisplayPort to DVI-D Adapter Model

Converts the DisplayPort connector on a HP Compaq Business Desktop computer or HP Workstation to a single link DVI-D port. The adapter has a latching DisplayPort connector on one end and DVI-D connector on the other for connecting to a DVI-D monitor cable.



HP DisplayPort to DVI-D Adapter

NOTE: The DisplayPort interface should be attached to the graphics card DisplayPort Adapter on the HP Compaq Business Desktop computer or HP Workstation, and the DVI-D connection should only be attached to the monitor DVI-D interface.

Key Benefits

- Converts a graphics card's DisplayPort output to a DVI output for use with a Single Link DVI-D monitor.
- 7.5 in (19.0 cm) adapter
- Latching DP connector for a secure connection

Compatibility

The HP DisplayPort to DVI-D Adapter supports the products listed below if they have a DisplayPort connector in the back of the system or if they have a graphics card installed that has a DisplayPort connector. DisplayPort outputs are sometimes notated by the DP++ icon. It supports all HP monitors that feature single link DVI interface.

HP Compaq dx2390, dx2400, dx2450, dx7400, dx7500, dc5800, dc5850, dc7800 and dc7900 Business Desktop PCs, HP Compaq 6000 Pro Microtower, HP Compaq 6000 Pro Small Form Factor, HP Compaq 6005 Pro Microtower and HP Compaq 6005 Pro Small Form Factor, HP Compaq 6200 Pro Microtower, HP Compaq 6200 Pro Small Form Factor, HP Compaq 6300 Pro Microtower, HP Compaq 6300 Pro Small Form Factor, HP Compaq 8200 Elite Small Form Factor, HP Compaq 8200 Elite Convertible Minitower, HP Compaq 8200 Elite Microtower, HP Compaq 8200 Elite Ultra-Slim Desktop, HP Compaq 8300 Elite Convertible Minitower, HP Compaq 8300 Elite Microtower, HP Compaq 8300 Elite Small Form Factor, HP Compaq 4300 Pro Small Form Factor Business Desktop PCs.

HP xw4600, xw9400, Z400, Z600 and Z800 Workstations, HP TouchSmart 9100, HP rp5800 Retail System.

NOTE: Not all models are available in all regions.

Overview - DisplayPort to DVI-D Adapter

Spares information

HP DisplayPort to DVI-D Adapter

662727-001

Service and Support

The DisplayPort to DVI-D Adapter has either a one-year limited warranty or the remainder of the warranty of the HP product in which it is installed. Technical support is available seven days a week, 24 hours a day, by phone, as well as online support forums. Certain restrictions and exclusions apply.

Technical Specifications

Connectors	DisplayPort and DVI-D single link connector
Adapter length	7.5 in (19.0 cm)
Adapter weight	0.10 lbs (0.05 kg)
Option kit contents	HP DisplayPort to DVI-D Adapter, documentation

Overview - DisplayPort to VGA Adapter

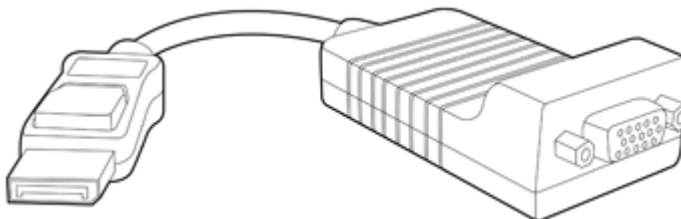
HP DisplayPort to VGA Adapter

Model

HP DisplayPort to VGA Adapter

AS615AA

Converts the DisplayPort connector on a HP Compaq Business Desktop computer or HP Workstation to a VGA port. The adapter has a latching DisplayPort connector on one end that connects to the graphics source and VGA connector on the other for connecting to a VGA monitor cable.



HP DisplayPort to VGA Adapter

NOTE: The DisplayPort interface should be attached to the graphics card DisplayPort Adapter on the HP Compaq Business Desktop computer or HP Workstation and the VGA connection should only be attached to the monitor VGA interface.

Key Benefits

- Converts a graphics card's DisplayPort output to a VGA output for use with a VGA monitor.
- 8 in (120.0 cm) adapter
- Latching DisplayPort connector for a secure connection

Compatibility

The HP DisplayPort to VGA Adapter supports the products listed below if they have a DisplayPort connector in the back of the system or if they have a graphics card installed that has a DisplayPort connector. DisplayPort outputs are sometimes notated by the DP++ icon. It supports all HP monitors that feature VGA interface.

HP Compaq dx2390 Microtower, HP Compaq dx2400 Microtower, HP Compaq dx2420 Microtower, HP Compaq dx2450 Microtower, HP Compaq dx7400 Microtower, HP Compaq dx7500 Microtower, HP Compaq dx7500 Small Form Factor, HP Compaq dc5800 Microtower, HP Compaq dc5850 Microtower, HP Compaq dc7800 Convertible Minitower, HP Compaq HP Compaq dc7900 Small Form Factor, HP Compaq dc7900 Convertible Minitower, HP Compaq dc7900 UltraSlim Desktop, HP Compaq 6000 Pro Microtower, HP Compaq 6000 Pro Small Form Factor, HP Compaq 6005 Pro Microtower, HP Compaq 6005 Pro Small Form Factor Business, HP Compaq 6200 Pro Microtower, HP Compaq 6200 Pro Small Form Factor, HP Compaq 6300 Pro Microtower, HP Compaq 6300 Pro Small Form Factor, HP Compaq 8200 Elite Small Form Factor, HP Compaq 8200 Elite Convertible Minitower, HP Compaq 8200 Elite Microtower, HP Compaq 8200 Elite Ultra-Slim Desktop, HP Compaq 8300 Elite Convertible Minitower, HP Compaq 8300 Elite Microtower, HP Compaq 8300 Elite Small Form Factor, HP Compaq 4300 Pro Small Form Factor Business Desktop PCs.

HP xw4600, xw9400, Z400, Z600, Z800 Workstations, HP TouchSmart 9100, HP rp5800 Retail System.

NOTE: Using the HP DisplayPort to VGA Adapter may require an update to the graphics driver installed on your system. To install the most up-to-date graphics driver go to: www.hp.com.

NOTE: Not all models are available in all regions.

Overview - DisplayPort to VGA Adapter

Spares information

HP DisplayPort to VGA Adapter

663103-001

Service and Support

The HP DisplayPort to VGA Adapter has either a one-year limited warranty or the remainder of the warranty of the HP product in which it is installed. Technical support is available seven days a week, 24 hours a day, by phone, as well as online support forums. Certain restrictions and exclusions apply.

Technical Specifications

Connectors	DisplayPort and VGA connector
Adapter length	8 in (20 cm)
Adapter weight	0.1 lbs (0.06 kg)
Option kit contents	HP DisplayPort to VGA Adapter, documentation
Maximum vertical refresh rate	85 Hz
Display support	162 MHz RAMDAC
Display max resolution	1600x1200

HP DisplayPort to VGA adapter display resolutions and refresh rates

NOTE: Other resolutions may be available but are not recommended as they may not have been tested and qualified by HP. Using the HP DisplayPort to VGA Adapter may require an update to the graphics driver installed on your system. To install the most up-to-date graphics driver go to: www.hp.com.

Resolution	Max refresh rate
640x480	85
800x600	85
1024x768	85
1280x720	85
1280x1024	85
1440x900	75
1600x1200	60
1680x1050	60
1920x1080	60-R
1920x1200	60-R

NOTE: 60-R denotes reduced blanking timings are used. Not all monitors support reduced blanking timing.

Overview - DisplayPort Cable Kit

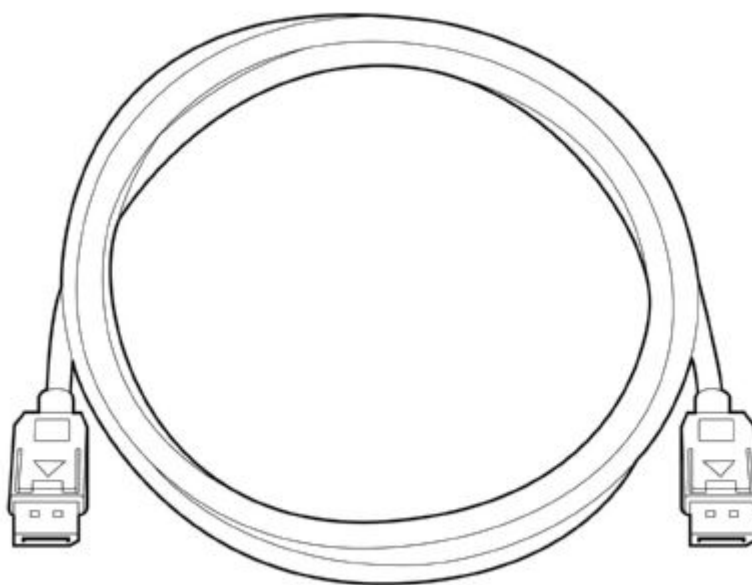
HP DisplayPort Cable Kit

Model

HP DisplayPort Cable Kit

VN567AA

Connects a DisplayPort connector on an HP Business Desktop computer to a DisplayPort connector on a monitor.



HP DisplayPort Cable

Key Benefits

- Connects a DisplayPort connector on an HP Business Desktop computer to a DisplayPort connector on a monitor.
- 6.6 ft (2.0 m) cable

Compatibility

The HP DisplayPort Cable supports the HP Compaq dx2390 Microtower, HP Compaq dx2400 Microtower, HP Compaq dx2420 Microtower, HP Compaq dx2450 Microtower, HP Pro 3330 Microtower, HP Pro 3335 Microtower, HP Pro 3340 Microtower, HP Compaq dx7500 Microtower, HP Compaq dx7400 Microtower, HP Compaq dc5800 Microtower, HP Compaq dc5850 Microtower, HP Compaq dx7500 Small Form Factor, HP Compaq dc7800 Convertible Minitower, HP Compaq dc7900 Small Form Factor, HP Compaq dc7900 Convertible Minitower, HP Compaq dc7900 Ultra Slim Desktop, HP Compaq 6000 Pro Microtower, HP Compaq 6000 Pro Small Form Factor, HP Compaq 6005 Pro Microtower and HP Compaq 6005 Pro Small Form Factor, HP Compaq 6200 Pro Microtower, HP Compaq 6200 Pro Small Form Factor, HP Compaq 6300 Pro Microtower, HP Compaq 6300 Pro Small Form Factor, HP Compaq 8200 Elite Small Form Factor, HP Compaq 8200 Elite Convertible Minitower, HP Compaq 8200 Elite Microtower, HP Compaq 8200 Elite Ultra-Slim Desktop, HP Compaq 8300 Elite Convertible Minitower, HP Compaq 8300 Elite Microtower, HP Compaq 8300 Elite Small Form Factor, HP Compaq 4300 Pro Small Form Factor Business Desktop PCs.

HP TouchSmart 9100, HP rp5800 Retail System.

Compatible with any graphics card that has a DisplayPort output. DisplayPort outputs are sometimes notated by the DP++ icon.

NOTE: Not all models are available in all regions.

Overview - DisplayPort Cable Kit

Spares information

HP DisplayPort Cable Kit

487562-001

Service and Support

The HP DisplayPort Cable Kit has either a one-year limited warranty or the remainder of the warranty of the HP product in which it is installed. Technical support is available seven days a week, 24 hours a day, by phone, as well as online support forums. Certain restrictions and exclusions apply.

Technical Specifications

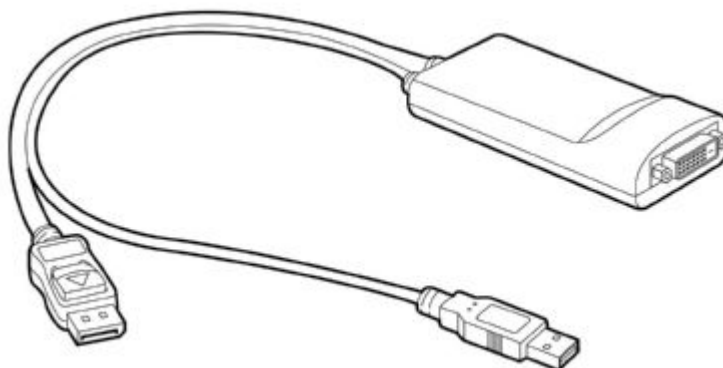
Connectors	HP DisplayPort Cable
Adapter length	6.6 ft (2.0 m)
Adapter weight	0.26 lbs (0.120 kg)
Option kit contents	HP DisplayPort Cable, documentation

Overview - HP DisplayPort to Dual Link DVI-D Adapter

HP DisplayPort to Dual Link DVI-D Adapter

NR078AA

Converts the DisplayPort connector on an HP Compaq Business Desktop computer or HP Workstation to a dual link DVI port. The adapter has a latching DisplayPort connector on one end, and a USB connector and DVI-D connector on the other end for connecting to a DVI monitor cable.



HP DisplayPort to Dual Link DVI-D Adapter

NOTE: The USB cable of the DisplayPort to Dual Link DVI-D adapter is for power only and should be connected to one of the system's rear USB ports. USB hubs may not provide sufficient power and are not recommended for use with this adapter.

Key Benefits

- Converts a graphics card's DisplayPort output to dual link DVI
- Resolution up to 2560x1600
- Supports all HP monitors that feature dual link DVI interface, including the HP LP3065 30-inch Widescreen LCD Monitor
- Latching DP connector for a secure connection

Compatibility

The HP DisplayPort to Dual Link DVI-D Adapter supports the products listed below if they have a DisplayPort connector in the back of the system or if they have a graphics card installed that has a DisplayPort connector. DisplayPort outputs are sometimes notated by the DP++ icon. This adapter is supported on the following HP products:

HP Compaq dx2390 Microtower, HP Compaq dx2400 Microtower, HP Compaq dx2450 Microtower, HP Compaq dx7400 Microtower, HP Compaq dx7500 Microtower, HP Compaq dx7500 Small Form Factor, HP Compaq dc5800 Microtower, HP Compaq dc5850 Microtower, HP Compaq dc7800 Convertible Minitower, HP Compaq dc7900 Small Form Factor, HP Compaq dc7900 Convertible Minitower, HP Compaq dc7900 UltraSlim Desktop, HP Compaq 6000 Pro Microtower, HP Compaq 6000 Pro Small Form Factor, HP Compaq 6005 Pro Microtower Business PC, HP Compaq 6005 Pro Small Form Factor, HP Compaq 6200 Pro Microtower, HP Compaq 6200 Pro Small Form Factor, HP Compaq 6300 Pro Microtower, HP Compaq 6300 Pro Small Form Factor, HP Compaq 8200 Elite Small Form Factor, HP Compaq 8200 Elite Convertible Minitower, HP Compaq 8200 Elite Microtower, HP Compaq 8200 Elite Ultra-Slim Desktop, HP Compaq 8300 Elite Convertible Minitower, HP Compaq 8300 Elite Microtower, HP Compaq 8300 Elite Small Form Factor, HP Compaq 4300 Pro Small Form Factor Business Desktop PCs.

HP xw4600, xw9400, Z400, Z600 and Z800 Workstations, HP TouchSmart 9100, HP rp5800 Retail System.

NOTE: Not all models are available in all regions.

Overview - HP DisplayPort to Dual Link DVI-D Adapter

Spares information

HP DisplayPort to Dual Link DVI-D Adapter

572033-001

Service and Support

The DisplayPort to dual link DVI-D Adapter has either a one-year limited warranty or the remainder of the warranty of the HP product in which it is installed. Technical support is available seven days a week, 24 hours a day, by phone, as well as online support forums. Certain restrictions and exclusions apply.

Technical Specifications

Connectors	DisplayPort, USB and DVI-D dual link connectors
Adapter length	18.69 in (47.47 cm)
Adapter weight	0.375 lbs (0.17 kg)
Maximum vertical refresh rate	60 Hz
Monitor support	Supports all HP monitors that feature dual link DVI-D interface
Display max resolution	2560x1600
Option kit contents	HP DisplayPort to Dual Link DVI-D Adapter, documentation

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declaração



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Fax: (11) 4197 8432
www.hp.com.br

Para
COMPANHIA DE DESENVOLVIMENTO
DOS VALES DO SÃO FRANCISCO E DO
PARNAÍBA

Assunto
PREGÃO ELETRÔNICO
Nº.: 522012

Data
Barueri, 22 de novembro de 2012.

BD 01150

Declaramos para os devidos fins, que a empresa **TORINO INFORMÁTICA LTDA** inscrita no CNPJ **03.619.767/0001-91**, sediada RUA RITA DE CARVALHO MONTEIRO, 120 - RETIRO SÃO JOÃO - SOROCABA - SP - CEP 18085-750, é uma Revenda **Participante do Programa de Canais da Hewlett-Packard - HP PartnerONE**, estando apta a comercializar a linha HP de produtos de computação de nossa fabricação.

Produtos:

B5P96LT - HP 6300P SFF i53470 500G 4.0G 28 PC: garantia de 36 (trinta e seis) meses "on-site" (UE379E).

B8V34LT - HP Z420 ZC3.6 1TB 4GB Win 7 Pro 64 bit WS: garantia de 60 (sessenta) meses "on site" (U7924E).

B8T12LT - HP 8470p i5-3360M 14.0 4GB/500 PC: garantia de 48 (quarenta e oito) meses "on-site" (U7860E).

Durante o período de garantia, responsabilizamo-nos pela garantia dentro das condições padrão HP, conforme especificado em nossos manuais técnicos. Serviços adicionais ao especificado pela garantia, podem ser adquiridos através da compra do Care Pack pela **TORINO INFORMÁTICA LTDA**.

Declaramos que:

- os equipamentos são novos, estão em linha de fabricação, que não foram submetidos a uso, nem recondicionamento, ressaltados os testes de fábrica.
- o desktop possui arquitetura BTX.
- a Workstation possui arquitetura ATX.
- declaração que a Bios são desenvolvidas para os modelos em exclusivo.
- declaração que a placa mãe de todos os modelos são de fabricação da HP.

As configurações ofertadas para esta licitação são de nossa própria fabricação ou homologadas por regime de **O&M** e estão em nossa linha de produção continuada, incluindo substituição do disco rígido em caso de aviso de pré-falha identificado pelo software de gerenciamento e garantimos a total funcionalidade de todos os componentes e interfaces básicas.

declaração



Hewlett Packard Brasil Ltda.
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www.hp.com.br

Declaramos ainda, que a HP possui site na internet - www.hp.com.br - onde pode ser efetuado download de drivers para os equipamentos ofertados e número de telefone para Grande São Paulo - **(011) 4004-7751** e demais regiões - **0800 709 77 51** - para informações e aberturas de chamados técnicos.

Recomendamos que o primeiro contato com a assistência técnica seja feito através da HP nos telefones acima, a fim de agilizar o procedimento de atendimento.

Os serviços de suporte, assistência técnica e manutenção serão realizados por nossa Rede de Serviços Autorizada, distribuída em todo território nacional ou conforme indicado a seguir, com uso de peças e componentes originais e com técnicos devidamente treinados:

APB INFORMATICA LTDA – ME (Atende o Estado do Acre)

Endereço: Av. Calama, 4203
Cidade/UF: Porto Velho, RO – CEP: 76820-739
CNPJ: 32.174.120/0003-38
Contato: Ramón Lacerda/Ana

NEWSUPRI COMERCIO REPRESENTACOES E SERVICOS LTDA - NEWSUPRI - FILIAL MACEIÓ

Endereço: Rua Deputado José Lages, 972 - Térreo, SI 07 – Ponta Verde
Cidade/UF: Maceió, AL – CEP: 57035-330
CNPJ: 12.707.105/0003-26
Contato: Selma

C A FONTOURA - ME (CIA DE INFORMATICA)

Endereço: Avenida Bahia, 431 – Pacoval
Cidade/UF: Macapá, AP - CEP: 68908-320
CNPJ: 05.758.365/0001-01
Contato: Cláudio Fontoura / Liliane Mendes

APB INFORMATICA LTDA - ME

Endereço: Av. Carvalho Leal, Nº 1330 - Cachoeirinha
Cidade/UF: Manaus, AM – CEP: 69065-001
CNPJ: 03.217.412/0001-76
Contato: Ramon Lacerda / Izabel/Jorge

SUPRISERVICE SERVIÇOS DE INFORMÁTICA LTDA.

Endereço: Tr Abelardo Andrea, EDF Milton Moreira II, nº 04 – 2º Andar.
Cidade/UF: Salvador, BA – CEP: 42.700-000
CNPJ: 04.351.353/0001-97
Contato: Priscila



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LEBRE TECN. E INF. LTDA.

Endereço: Rua Miguel Clamon, 14 - Comercio
Cidade/UF: Salvador, BA - CEP 40015-010
CNPJ: 41.986.662/0001-60
Contato: Ana Claudia / Lara Costa / Carlos

NÚCLEO INFORMATICA COMERCIO E SERVICOS LTDA.

Endereço: Rua Barão de Aratanha, 1300 - Fátima
Cidade/UF: Fortaleza, CE - CEP: 60050-071
CNPJ 12.340.758/0001-58
Contato: Debora

OS INFORMATICA ASSISTÊNCIA TÉCNICA E SERVIÇOS LTDA.

Endereço: SCLRN 703 Bloco F, loja 51/53- Asa Norte
Cidade/UF: Brasília, DF - CEP: 70730-516
CNPJ: 01.567.165/0001-02
Contato: Iracy / Kelly / Tayanne / Fabiana

MAVIX SECURITY SOLUTIONS LTDA - EPP

Endereço: Rua Antonio Ataíde, 1415 - Edif. Beta - Lojas 02 e 03 - Divino Espírito Santo
Cidade/UF: Vitoria, ES - CEP: 29107-215
CNPJ: 36.325.942/0001-97
Contato: Marcia/ Mariana

KR SERVIÇOS LTDA.

Endereço: Av. Deputado Jamel Cecilio, 2511, Jardim Goiás
Cidade/UF: Goiânia, GO - CEP: 75810-100
CNPJ: 10.673.274/0001-03
Contato: Kariton Henrique

DIGITAL PROCESSAMENTO DE DADOS LTDA. - MATRIZ

Endereço: Rua dos Acapus, 24 - Quadra 51 - Renascença
Cidade/UF: São Luís, MA - CEP: 65075-020
CNPJ: 11.102.415/0001-92
Contato: Claudine

DIGITAL PROCESSAMENTO DE DADOS LTDA.

Endereço: Rua Pernambuco 116A - Jussara
Cidade/UF: Imperatriz, MA - CEP 65900-500
CNPJ: 11.102.415/0003-54
Contato: Rubenilson Nunes / Geraldo

BIGSMALL SERVIÇOS DE INFORMATICA LTDA.

Endereço: Rua das Begônias, 845 - Jardim Cuiabá
Cidade/UF: Cuiabá, MT - CEP - 78043-112
CNPJ: 00.413.114/0001-63
Contato: Cristina



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Endereço: Av. Afonso Pena, 510 - Amambai
Cidade/UF: Campo Grande, MS - CEP: 79005-000
CNPJ.: 01.567165/0009-60
Contato: Alex / Wellington

FONTES TECNOLOGIA EM COMPUTADORES LTDA.

Endereço: Avenida Fernando Vilela, 2302 - Osvaldo Rezende
Cidade/UF: Uberlândia, MG - CEP: 38400-458
CNPJ: 06.109.703/0001-39
Contato: Renato / Lucelaine / Diego

FONTES TECNOLOGIA EM COMPUTADORES LTDA.

Endereço: Rua Araguari, 325 - São Benedito
Cidade/UF: Uberaba, MG - CEP: 38020-290
CNPJ: 06.109.703/0002-10
Contato: Renato / Romulo / Lucelaine

MIRA INFORMATICA LTDA

Endereço: Rua Sete de Setembro 2464- Centro
Cidade/UF: Governador Valadares, MG - CEP: 35010-172
CNPJ: 65215048/0001-62
Contato: Samuel / Rodrigo

PROCEDATA INFORMATICA LTDA.

Endereço: Avenida Dulce Sarmiento, 140 sala 312
Cidade/UF: Montes Claros, MG - CEP: 39400-318
CNPJ: 65.181.075/0005-95
Contato: Luciene / Debora / Larissa

PROCEDATA INFORMATICA LTDA.

Endereço: Avenida Nossa Senhora do Carmo, 45 - SALAS 501 à 504 - Carmo Sion
Cidade/UF: Belo Horizonte, MG - CEP: 30310-000
CNPJ: 65.181.075/0001-61
Contato: Luciene / Debora / Larissa

PROCEDATA INFORMATICA LTDA.

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SAT SERVICOS DE INFORMATICA LTDA.

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MÚLTIPLUS SERVICOS DE INFORMATICA LTDA - FILIAL VOLTA REDONDA

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MÚTIPLUS SERVICOS DE INFORMATICA LTDA - MATRIZ

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PRINTER COMERCIO E SERVICOS LTDA - MATRIZ

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CNPJ: 07.497.205/0001-73
Contato: Eric / Fabio Ramos

SJTECH RJ

Endereço: Rua Farias Brito, 27
Cidade/UF: Rio de Janeiro, RJ - CEP: 20540320
CNPJ: 74.516.915/0004-33
Contato: Marcelo

NUCLEO INFORMATICA COMERCIO E SERVICOS LTDA

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Cidade/UF: Natal, RN - CEP: 59062-255
CNPJ: 12.340.758/0002-39
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WBM COMERCIO E MANUTENCAO DE INFORMATICA LTDA - MATRIZ

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CNPJ: 94.909.447/0001-21
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APB INFORMATICA LTDA - ME

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CNPJ: 03.217.412/0001-76
Contato: Ramon Lacerda / Izabel/Jorge

VJM MANUTENCAO EM EQUIPAMENTOS LTDA.

Endereço: Rua Vereador Walter Borges, 451 - Campinas
Cidade/UF: São José, SC - CEP: 88101-030
CNPJ: 85.137.271/0001-46
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AMBAR TECNOLOGY COMÉRCIO E SERVIÇOS LTDA.

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Cidade/UF: São José dos Campos, SP - CEP: 12243-580
CNPJ: 03.133.872/0001-16
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COMPUSPAR BRASIL LTDA.

Endereço: AV. CECI, 548 - Tamboré
Cidade/UF: Barueri, SP - CEP: 64601-200
CNPJ: 04.809.335/0001-06
Contato: Priscila

MICROSUL SERVICOS E EQUIPAMENTOS PARA INFORMATICA LTDA

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Contato: Bruno / Jane / Evair / Marcio Padilha

PLANUS INFORMÁTICA E TECNOLOGIA LTDA.

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CNPJ: 57.988.867/0001-14
Contato: Iraneide

REWAR COM. IMP. PROD. INFORMÁTICA LTDA

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Cidade/UF: Barueri, SP - CEP: 06455-002
CNPJ: 74.588.229/0001-25
Contato: Cesar Moryama

SJ TECH INTERNATIONAL COM. IMP. EXPORTAÇÃO LTDA

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Contato: Juliana

FEB REPARO E LOGISTICA LTDA

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declaração



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Atenciosamente,

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Representante Legal
Hewlett Packard Brasil Ltda.



Instituto Nacional de Metrologia,
Normalização e Qualidade Industrial

INFORMAÇÕES SOBRE OS ACORDOS DE RECONHECIMENTO MÚTUO NO CAMPO DO CREDENCIAMENTO DE LABORATÓRIOS

DOQ-CGCRE-007

Revisão: 00 – ABRIL/2003

Documento de caráter orientativo

INFORMAÇÕES SOBRE OS ACORDOS DE RECONHECIMENTO MÚTUO NO CAMPO DO CREDENCIAMENTO DE LABORATÓRIOS

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1 OBJETIVO

Este documento fornece orientações sobre os acordos de reconhecimento mútuo, regionais e internacionais, assinados pela Cgcre/Inmetro no campo de credenciamento de laboratórios de ensaio e calibração.

2 CAMPO DE APLICAÇÃO

Este documento se aplica à Dicla, particularmente aos laboratórios credenciados e postulantes ao credenciamento e aos avaliadores e especialistas que atuam nos processos de credenciamento de laboratórios.

3 RESPONSABILIDADE

A responsabilidade pela revisão deste documento é da Dicla.

4 SIGLAS

APLAC Asia-Pacific Laboratory Accreditation Cooperation

Dicla Divisão de Credenciamento de Laboratórios

Cgcre Coordenação Geral de Credenciamento

EA European co-operation for Accreditation

ILAC International Laboratory Accreditation Cooperation

IAAC Interamerican Accreditation Cooperation

Inmetro Instituto Nacional de Metrologia, Normalização e Qualidade Industrial

5 INTRODUÇÃO

Os acordos de reconhecimento mútuo entre organismos de credenciamento de laboratórios são uma das formas mais efetivas de facilitar a eliminação da necessidade de re-ensaio de materiais e produtos nos países importadores, problema identificado pela Organização Mundial do Comércio (OMC) como uma das maiores barreiras técnicas ao comércio. A Cgcre/Inmetro, juntamente com organismos de credenciamento congêneres de outros países, vem buscando estabelecer, por meio de cooperações

regionais e internacionais de organismos de credenciamento, acordos que possam promover a confiança daqueles que se utilizam dos resultados de ensaios e calibrações. Atualmente a Cgcre/Inmetro mantém acordos de reconhecimento mútuo com 43 organismos de credenciamento de 33 economias. Com estes acordos os resultados dos ensaios e calibrações realizados pelos laboratórios credenciados pela Cgcre/Inmetro passam a ser aceitos pelos demais organismos de credenciamento signatários, que, tal como a própria Cgcre/Inmetro, devem ainda promover o acordo em seus próprios países, divulgando-o às autoridades reguladoras, à indústria e todos os envolvidos com o comércio exterior. Os acordos de reconhecimento mútuo entre organismos de credenciamento, serão, cada vez mais, ferramentas facilitadoras do comércio e uma base técnica para os acordos de comércio exterior entre governos.

6 ACORDOS DE RECONHECIMENTO MÚTUO NO CAMPO DE CREDENCIAMENTO DE LABORATÓRIOS

6.1 International Laboratory Accreditation Cooperation – ILAC (<http://www.ilac.org>)

A ILAC é a cooperação internacional que reúne organismos de credenciamento de laboratórios de todo o mundo. O Inmetro é membro da ILAC desde a sua criação, participado inclusive de seu Comitê Executivo. Desde 1996, a ILAC tem desenvolvido mecanismos para implementação de seu acordo internacional no campo do credenciamento de laboratórios, cuja documentação base foi definida durante sua Assembléia Geral, organizada pelo Inmetro, no Rio de Janeiro, em outubro de 1999.

Em 2 de novembro de 2000, em Washington DC, durante a Conferência ILAC 2000, o acordo da ILAC (ILAC Arrangement) foi assinado por 34 organismos de credenciamento de laboratórios de 26 economias dos 5 continentes, incluindo o Inmetro, único representante da América Latina. O acordo entrou em vigor a partir de 31 de janeiro de 2001, passando seus signatários a reconhecer a equivalência dos seus sistemas de credenciamento de laboratórios e se comprometendo a promover o acordo e a aceitação dos certificados de calibração e relatórios de ensaio emitidos pelos laboratórios credenciados por seus parceiros internacionais.

6.2 European co-operation for Accreditation – EA (www.european-accreditation.org)

A EA é a cooperação para credenciamento de laboratórios e organismos de certificação e inspeção que envolve os países membros da Comunidade Européia. O Inmetro mantém um contrato de cooperação com a EA desde 1998.

Participam do acordo multilateral da EA apenas organismos de credenciamento oriundos dos países membros da Comunidade Européia.

A EA também mantém acordos bilaterais com organismos credenciadores de países não pertencentes a Comunidade Européia, como o A2LA (Estados Unidos), o NATA (Austrália) e o SANAS (África do Sul).

Em 1998 o Inmetro apresentou requerimento para assinar um acordo bilateral com a EA e, em 30 de janeiro de 2001, o acordo bilateral de reconhecimento mútuo foi assinado.

Embora um organismo de credenciamento que tenha acordo bilateral com a EA não tenha obrigação de reconhecer outros organismos que também tenham acordo bilateral com a EA, atualmente, todos os organismos que tem acordo bilateral com a EA são também signatários do acordo da ILAC e, conseqüentemente, aceitam os certificados emitidos pelos laboratórios credenciados pela Cgcre/Inmetro.

6.3 Interamerican Accreditation Cooperation – IAAC (<http://www.iaac.org>)

A IAAC é a cooperação que reúne os organismos de credenciamento de laboratórios e de organismos de certificação e inspeção de países das Américas. Participam da cooperação 19 membros plenos e 10

membros associados de 20 países, reunindo as principais economias da América do Norte, América Central, Caribe e América do Sul.

Em outubro de 2002 foi assinado seu primeiro Acordo Multilateral de Reconhecimento Mútuo na atividade de credenciamento de laboratórios. Foram signatários desse acordo a American Association for Laboratory Accreditation (A2LA), a Cgcre/Inmetro e o Standards Council of Canada (SCC).

6.4 Asian-Pacific Laboratory Accreditation Cooperation – APLAC

(http://www.aplac.org/members/members_mra.htm)

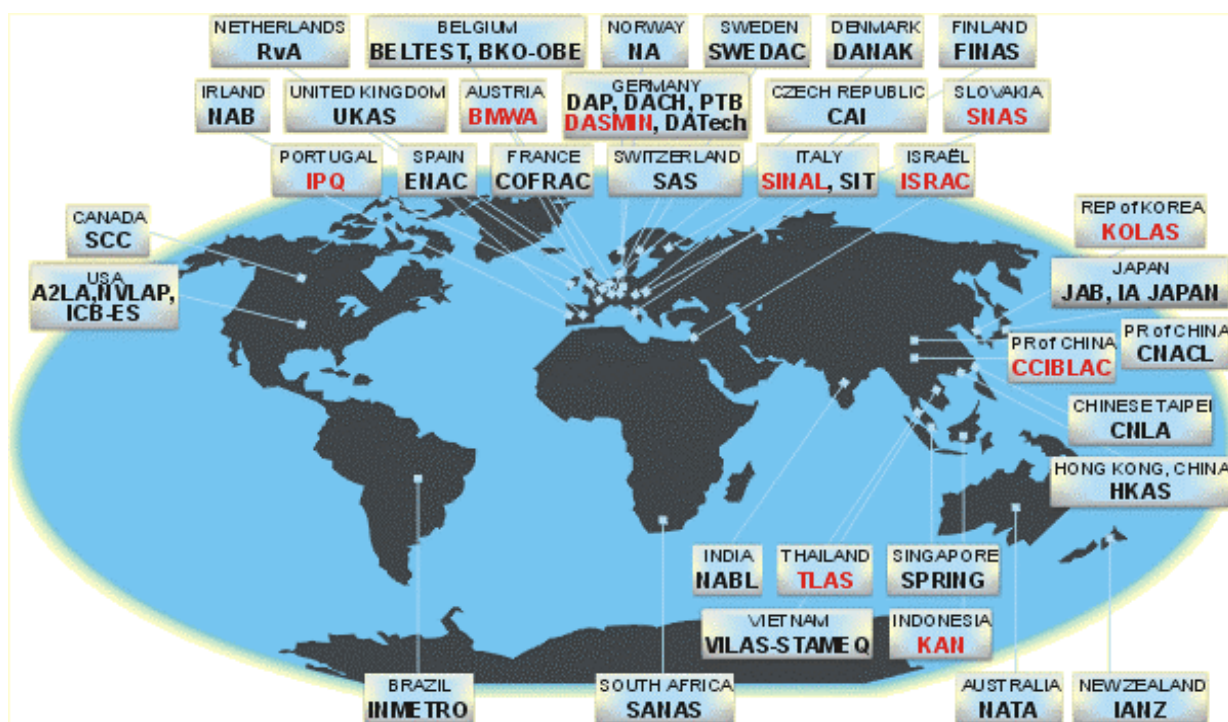
A APLAC é a cooperação que reúne os organismos de credenciamento de laboratórios da Comunidade Econômica da Ásia-Pacífico (APEC).

Embora a Cgcre/Inmetro não mantenha acordo bilateral com a APLAC, os certificados e relatórios emitidos pelos laboratórios credenciados pela Cgcre/Inmetro são aceitos pelos organismos de credenciamento daquela cooperação, em razão de todos os seus membros serem signatários do acordo da ILAC.

ANEXO – ORGANISMOS COM OS QUAIS SÃO MANTIDOS ACORDOS DE RECONHECIMENTO MÚTUO NO CAMPO DO CREDENCIAMENTO DE LABORATÓRIOS

ALERTA ➡ Em caso de dúvidas sobre os dados dos Organismos de Credenciamento ou sobre sua logomarca consulte o site do organismo ou entre em contato com a Divisão de Credenciamento de Laboratórios – DICLA (dicla@inmetro.gov.br).

Informações atualizadas sobre novos, signatários dos acordos podem ser obtidos nos sites da ILAC (<http://www.ilac.org>), EA (www.european-accreditation.org) e IAAC (<http://www.iaac.org>).



ÁFRICA DO SUL

South African National Accreditation System (SANAS)

Contato:

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 Chief Executive Officer
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 Lynwood Ridge 0040
 Tel: + 27 12 349 1441/1442
 Fax: + 27 12 349 1449
 Email: office@sanas.co.za
 Internet: <http://www.sanas.co.za>



ALEMANHA

Nota: O DAR é um organismo coordenador para todos os organismo de credenciamento nas áreas regulada ou não, na Alemanha.. Aqueles organismos que mantêm acordo de reconhecimento mútuo com a Cgcre/Inmetro através do acordo multilateral da EA são DACH, DAP, DATech, DEKITZ e DKD.

**Deutsche Akkreditierungsstelle Chemie GmbH (DACH)
(German Accreditation Body for Chemistry)**

Contato:

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DACH
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D-60486 Frankfurt/M
GERMANY
Tel: +49 69 663 7190
Fax: +49 69 663 7120
Email: dach@dach-gmbh.de
Internet: <http://www.dach-gmbh.de>



DAC-P-xxxxx...-NN
(DAC = OC #
P = tipo de credenciamento, P
Para ensaio,
xxxxx = número dado pelo
OC e identificando o
certificado
NN=número interno do OC)

Nota: OC – Organismo de credenciamento

**Deutsches Akkreditierungssystem Prüfwesen GmbH (DAP)
(German Accreditation System for Testing)**

Contato:

Mr Berner
DAP
Albert-Einstein.Str. 16
D-12489 Berlin
GERMANY
Tel: +49 30 6705 9110
Fax: +49 30 6705 9115
E-mail: zentrale@dap.de
Internet: <http://www.dap.de>



DAP-P-xxxxx...-NN
(DAP = OC #
P = tipo de credenciamento,
P Para ensaio,
xxxxx = número dado pelo
OC e identificando o
certificado
NN=número interno do OC)
Nota: OC – Organismo de credenciamento

**Deutsche Akkreditierungsstelle für Technik e.V. (DATech)
(German Accreditation Body for Technology)**

Contato:

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Fax: +49 69 6109 4355
E-mail: datech@datech.de
Internet: <http://www.datech.de>



DAT-P-xxxxx...-NN
(DAT = OC #
P = tipo de credenciamento, P
Para ensaio,
xxxxx = número dado pelo
OC e identificando o
certificado
NN=número interno do OC)

Nota: OC – Organismo de credenciamento

Deutsche Akkreditierungsstelle für Informations und Telekommunikationstechnik (DEKITZ) in TGA (German Accreditation Body for Information and Telecommunication Technology)

Contato:

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E-mail: erich.utz@tga-gmbh.de



DIT-P-xxxxx...-NN
(DIT = OC #
P = tipo de credenciamento, P
Para ensaio,
xxxxx = número dado pelo
OC e identificando o
certificado
NN=número interno do OC)

Nota: OC – Organismo de credenciamento

**Deutscher Kalibrierdienst (DKD)
(German Calibration Service)**

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AUSTRÁLIA

National Association of Testing Authorities (NATA)

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**BÉLGICA****Ministère des Affaires économiques Service Accreditation (BELTEST)
(Ministry of Foreign Affairs Accreditation Service)**

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E-mail: BELTEST@popost.eunet.be
Internet: <http://www.ib.be/invest-belgium/accred>

**Belgische Kalibratie Organisatie Organisation Belge d'etalonnage (BKO-OBE)
(Belgium Calibration Organisation)**

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Internet: <http://www.beltest.fgov.be>



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Standards Council of Canada
Conseil canadien des normes

DINAMARCA**Danish Agency for Trade and Industry (DANAK)**

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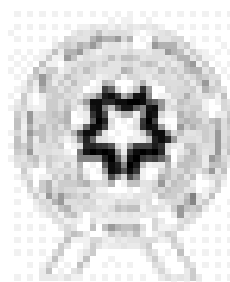
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NVLAP Accreditation Information

Listed below is the scope of accreditation for this laboratory as of October 17, 2012. For additional information, contact NVLAP at (301) 975-4016.
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Electromagnetic Compatibility & Telecommunications

Accreditation Valid From: October 1, 2012 Through: September 30, 2013

• Emissions Test Methods

[12/CIS22f] CNS 13438 (2006) (up to 6GHz)

Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

[12/CIS22j1] EN 55022 (2006) + A1 (2007)

Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement

[12/CIS22j2] EN 55022:2010

Information technology equipment. Radio disturbance characteristics. Limits and methods of measurement

[12/CIS22k] IEC/CISPR 22 (2008-09)

Limits and Methods of Measurement of Radio Disturbance Characteristics of Information Technology Equipment

[12/EM02n] IEC 61000-3-2 Ed. 3.2 (2009)

Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current *[12/EM03n]* IEC 61000-3-3 Ed. 2.0 (2008)

EMC- Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current =16 A per phase and not subject to conditional connection

[12/FCC15b] ANSI C63.4 (2003) with FCC Method 47 CFR Part 15, Subpart B

Unintentional Radiators

[12/ICES003] ICES-003 Issue 4 (2004)

Implementation and Interpretation of the Interference-Causing Equipment Standard for Digital Apparatus. (Industry Canada)

[12/IEEE149] IEEE Std 149 (1979)

IEEE Standard Test Procedure for Antennas

[12/KN22e] KN22 (2008-5) with RRL Notice No. 2008-3 (May 20, 2008)

Conformity Assessment Procedure for Electromagnetic Interference; With KN 22

[12/KN22f] KN22 (Annex 5) with RRA Announce 2010-5 (Dec 24, 2010)

Conformity Assessment Procedure for Electromagnetic Interference; With KN 22 (Annex 5)

[12/KN22g] KN22 (Annex 5) with RRA Announce 2011-30 (Dec 23, 2011)

Conformity Assessment Procedure for Electromagnetic Interference; With KN 22 (Annex 5). K Only

[12/RRA115] RRA Public Notification 2011-5, K only (January 19, 2011)

Technical requirements for Electromagnetic Interference (K only)

[12/RRA124] RRA Public Notification 2011-24, K only (Dec 23, 2011)

Technical Requirements for Electromagnetic Interference (K only)

[12/T51b1] AS/NZS CISPR 22 (2009)

Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement

[12/TCVN] TCVN 7189:2002 (CISPR 22:1997)

Information Technology Equipment-Radio disturbance characteristics-Limits and methods of measurement

[12/TCVNa] TCVN 7189:2009 (CISPR 22:2006)

Information Technology Equipment-Radio disturbance characteristics - Limits and methods of measurement

[12/VCCIg] Agreement of VCCI V-3 (2011.04)

Agreement of VCCI Council - Technical Requirements: V-3/2011.04 (including radiated disturbance above 1 GHz)

[12/VCCIh] Agreement of VCCI V-3 (2012.04)

Agreement of VCCI Council - Technical Requirements: V-3/2012.04 (including radiated disturbance above 1 GHz)

- **Immunity Test Methods**

[12/CIS24e] IEC/CISPR 24 (1997) and EN 55024 (1998) + A1(2001), A2(2003)

Information technology equipment - Immunity characteristics - Limits and methods of measurement

[12/CIS24g] CISPR 24 ed2.0 (2010-08)

Information technology equipment - Immunity characteristics - Limits and methods of measurement

[12/CIS24h] EN 55024 (2010)

Information technology equipment. Immunity characteristics. Limits and methods of measurement

[12/IO1f] EN 61000-4-2 (2009-05)

Electromagnetic compatibility (EMC) — Part 4-2 : Testing and measurement techniques — Electrostatic discharge immunity test

[12/IO2i1] IEC 61000-4-3 Ed. 3.2 (2010)

Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test

[12/IO3g] IEC 61000-4-4, Ed. 2.0 + A1 (2010)

Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical Fast Transient/Burst Immunity Test

[12/IO4aa] IEC 61000-4-5, Ed. 2.0 (2005-11); EN 61000-4-5

Electromagnetic Compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test

[12/IO5f1] IEC 61000-4-6 Ed. 3.0 (2008)

Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields

[12/IO6e] IEC 61000-4-8 (2009)

Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test

[12/IO7c] IEC 61000-4-11, Ed. 2 (2004-03) & EN 61000-4-11

Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests

[12/KN11h] KN 61000-4-11 (Annex 1-7) RRA Announce 2010-6 (Dec.24, 2010)

Conformity Assessment Procedure for EMS (Voltage Dips, Short Interruptions and Voltage Variations Immunity tests)

[12/KN11i] KN 61000-4-11 (Annex 1-7) RRA Announce 2011-31(Dec.23, 2011)

Conformity Assessment Procedure for EMS (Voltage Dips, Short Interruptions and Voltage Variations Immunity tests); K Only

[12/KN132] Korea RRL Notice 132 (october 2005)

Conformity Assessment Procedure for Electromagnetic Susceptibility

[12/KN150] EMS RRL Notice No. 2005-130: 2005.12.27

RRL Notice No. 2005-130: Technical Requirements for Electromagnetic Susceptibility Annex 1-7 (KN61000-4-2, -3, -4, -5, -6, -8, -11), RRL Notice No. 2005-132: Conformity Assessment Procedures for Electromagnetic Susceptibility

[12/KN24] KN24 (December 2005) with RRL Notice No. 2005-83

Information Technology Equipment - immunity characteristics - limits and methods of measurements

[12/KN24e] KN 24 (Annex 5) with RRA Announce 2010-6 (Dec. 24, 2010)

Conformity Assessment Procedure for EMS (Information technology equipment ? Immunity characteristics ? Limits and methods of measurement)

[12/KN24f] KN 24 (Annex 5) with RRA Announce 2011-31 (Dec. 23, 2011)

Conformity Assessment Procedure for Electromagnetic Susceptibility; with KN24 (Annex 5). K Only

[12/KN2e] KN 61000-4-2 (Annex 1-1) RRA Announce 2010-6 (Dec. 24, 2010)

Conformity Assessment Procedure for EMS (Electrostatic Discharge Immunity Test)

[12/KN2f] KN 61000-4-2 (Annex 1-1) RRA Announce 2011-31(Dec. 23, 2011)

Conformity Assessment Procedure for EMS (Electrostatic Discharge Immunity Test); K only.

[12/KN3] KN 61000-4-3 with RRL Notice No. 2005-83 (Sept. 29, 2005)

Radiated, radio-frequency, electromagnetic field immunity test

[12/KN31] Korea RRL Notice No. 31 (2004)

Conformity Assessment Procedures for Electromagnetic Susceptibility using KN 61000-4-2, KN 61000-4-3, KN 61000-4-4, KN 61000-4-5, KN 61000-4-8, KN 61000-4-11, KN 20, KN 41, and KN 50.

[12/KN3e] KN 61000-4-3 (Annex 1-2) RRA Announce 2010-6 (Dec. 24, 2010)

Radiated, radio-frequency, electromagnetic field immunity test

[12/KN3f] KN 61000-4-3 (Annex 1-2) RRA Announce 2011-31(Dec. 23, 2011)

Radiated, radio-frequency, electromagnetic field immunity test; K only.

[12/KN4e] KN 61000-4-4 (Annex 1-3) RRA Announce 2010-6 (Dec. 24, 2010)

Electromagnetic compatibility (EMC): Testing and measurement techniques - Electrical Fast Transient/Burst Immunity Test

[12/KN4f] KN 61000-4-4 (Annex 1-3) RRA Announce 2011-31(Dec. 23, 2011)

Electromagnetic compatibility (EMC): Testing and measurement techniques - Electrical Fast Transient/Burst Immunity Test; K only

[12/KN5e] KN 61000-4-5 (Annex 1-4) RRA Announce 2010-6 (Dec. 24, 2010)

Conformity Assessment Procedure for EMS (Surge Immunity Test)

[12/KN5f] KN 61000-4-5 (Annex 1-4) RRA Announce 2011-31(Dec. 23, 2011)

Conformity Assessment Procedure for EMS (Surge Immunity Test); K only.

[12/KN6e] KN 61000-4-6 (Annex 1-5) RRA Announce 2010-6 (Dec. 24, 2010)

Electromagnetic compatibility (EMC): Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields

[12/KN6f] KN 61000-4-6 (Annex 1-5) RRA Announce 2011-31(Dec. 23, 2011)

Electromagnetic compatibility (EMC): Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields; K only.

[12/KN70] Korea RRL Notice 70 (2004)

Technical Requirements for Electromagnetic Susceptibility using KN 61000-4-2, KN 61000-4-3, KN61000-4-4, KN 61000-4-5, KN 61000-4-6, KN 61000-4-8, KN 20, KN 41, and KN 51

[12/KN8e] KN 61000-4-8 (Annex 1-6) RRA Announce 2010-6 (Dec. 24, 2010)

Conformity Assessment Procedure for EMS (Power Frequency Magnetic Field Immunity Test)

[12/KN8f] KN 61000-4-8 (Annex 1-6) RRA Announce 2011-31(Dec. 23, 2011)

Conformity Assessment Procedure for EMS (Power Frequency Magnetic Field Immunity Test); K only

[12/RRA0812] RRA Notice 2008-12 (Dec. 16, 2008)

Conformity Assessment Procedure for Electronic Susceptibility (K only)

[12/RRA116] RRA Public Notification 2011-6, K only (January 19, 2011)

Technical Requirements for Electromagnetic Susceptibility (K only)

[12/RRA125] RRA Public Notification 2011-25, K only (Dec 23, 2011)

Technical Requirements for Electromagnetic Susceptibility (K only)

[12/RRA131] RRA Announce 2011-31, K only (Dec 23, 2011)

Conformity Assessment Procedure for Electromagnetic Susceptibility (K only)

• **Product Safety Test Methods**

[12/K60950] K60950-1 Information technology equipment - Safety - Part 1:

Information technology equipment - Safety - Part 1: General (contact laboratory representative for specific test methods)

[12/KRs1] RRL Notice No. 2004-42 (June 10, 2004)

Conformity Assessment Procedure for Type Approval of Telecommunications Terminal Equipment, Appendix 4: Electrical Safety Test Methods

[12/T41e] EN 60950-1, IEC 60950-1 & UL 60950-1 (1st edition): (2001)

Information technology equipment - Safety - Part 1: General requirements

[12/T41f] ANSI/UL 60950-1 (2003) and CAN/CSA 22.2 No. 60950-1

Safety of Information Technology Equipment

[12/T41f1] UL 60950-1 2nd Ed. 2007 and CAN/CSA-C22.2 No. 60590-1-07

Information Technology Equipment ? Safety ? Part 1: General Requirements

[12/T41i] EN 60950-1 (2006), IEC 60950-1 (2005) & UL 60950-1

Information technology equipment - Safety - Part 1: General requirements

[12/T41i3] EN 60950-1 (2006) + A1 (2009)

Information technology equipment - Safety - Part 1: General requirements

[12/T50e] AS/NZS 60950.1 (2003) + A1 (2006) + A2 (2008) + A3 (2008)

Information technology equipment - Safety - Part 1: General Requirements

• **Radio Test Methods**

[12/CTIA]

CTIA Test Plan for Mobile Station Over the Air Performance

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Acoustical Testing Services

Accreditation Valid From: October 1, 2012 Through: September 30, 2013

[08/P11] ISO 3744

Determination of Sound Power Levels of Noise Sources - Engineering Methods for Free-Field Conditions Over a Reflecting Plane

[08/P21] ISO 3745

Determination of Sound Power Levels of Noise Sources - Precision Methods for Anechoic and Semi-Anechoic Rooms

[08/P24] ANSI S12.10

Measurement and Designation of Noise Emitted by Computer and Business Equipment

[08/P40] ISO 9296

Acoustics - Declared Noise Emission Values of Computer and Business Equipment

[08/P41] ECMA 74

Measurement of Airborne Noise Emitted by Information Technology and Telecommunications Equipment

[08/P48] ISO 7779

Measurement of Airborne Noise Emitted by Computer and Business Equipment

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Date created: September 21, 2011 | Last updated: October 17, 2012 Contact: [Webmaster](#)



DECLARATION OF CONFORMITY

according to ISO/IEC 17050-1 and EN 17050-1

**DoC #: TPC-F026-SF-
02292012**

Supplier's Name:
Supplier's Address:

Hewlett-Packard Company
11445 Compaq Center Drive West, Houston, TX 77070, USA

declares, that the product

Product Name and Model: HP Compaq 8300 Elite SFF PC; HP Compaq Elite 8300 SFF PC; HP Compaq 6300 Pro SFF PC; HP Compaq Pro 6300 SFF PC

Regulatory Model Number: ¹⁾ TPC-F026-SF

Product Options: All

conforms to the following Product Specifications and Regulations:

EMC:

CISPR 22:2005 Class B
EN 55024:1998 +A1:2001 +A2:2003
EN 55022:2006 +A1:2007 Class B
FCC CFR 47 Part 15 Class B
EN 61000-3-2:2006 +A1:2009 +A2:2009
EN 61000-3-3:2008

Safety:

IEC 60950-1:2005 +A1:2009
EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011
EN 62479:2010

Telecom:

EN 300 328 V1.7.1
EN 301 489-17 V2.1.1
EN 62311:2008

Energy Use:

Regulation (EC) No. 1275/2008
EN 62301:2005

The product herewith complies with the requirements of the Low Voltage Directive 2006/95/EC, the EMC Directive 2004/108/EC, the R&TTE Directive 1999/5/EC, the Ecodesign Directive 2009/125/EC and carries the **CE** marking accordingly.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Additional Information:

- 1) This product is assigned a Regulatory Model Number which stays with the regulatory aspects of the design. The Regulatory Model Number is the main product identifier in the regulatory documentation and test reports, this number should not be confused with the marketing name or the product numbers.

Houston Feb. 29,
2012

Steve Ortmann, Manager

Local contact for regulatory topics only:

EU: Hewlett-Packard GmbH, HQ-TRE, Herrenberger Strasse 140, 71034 Boeblingen, Germany
U.S.: Hewlett-Packard, 3000 Hanover St., Palo Alto 94304, U.S.A. 650-857-1501

DECLARATION OF CONFORMITY

according to ISO/IEC 17050-1 and EN 17050-1

www.hp.eu/certificates

TPC-F026-SF OPTIONS

CATEGORY & DESCRIPTION	REGULATORY MODEL NUMBER
Ralink 802.11n (1X2) WLAN	WN7600R-MV


For NON-EU Countries Only

CATEGORY & DESCRIPTION	REGULATORY MODEL NUMBER
HP Wireless Keyboard	KBRF57711
HP Wireless Mouse	MORFFYUL
HP Wireless Transceiver	MORFFYUL-D



Product environmental attributes – THE ECO DECLARATION


The declaration may be published only when all rows and/or fields marked with an * are filled-in (n.a. for not applicable).
Additional information regarding each item may be found under P14.

Brand *	Hewlett-Packard	
Company name *	Hewlett-Packard Company	
Contact information *	Hans Wendschlag http://www.hp.com/hpinfo/globalcitizenship/environment/contactemail.html	
Internet site *	http://www.hp.com/hpinfo/globalcitizenship/environment/	
Additional information		

The company declares (based on product specification or test results based obtained from sample testing), that the product conforms to the statements given in this declaration.	
Type of product *	Desktop PC
Commercial name *	HP Compaq Pro 6300 SFF PC
Model number *	6300 SFF
Issue date *	9/19/2012
Intended market *	<input checked="" type="checkbox"/> Global <input type="checkbox"/> Europe <input type="checkbox"/> Asia, Pacific & Japan <input type="checkbox"/> Americas <input type="checkbox"/> Other
Additional information	


This is an uncontrolled copy when in printed form. Please refer to the contact information for the latest version.

Quality Control		Requirement met	
Item		Yes	No
QC1 *	The company enforces an internal quality control scheme to ensure the correctness of this eco declaration	<input checked="" type="checkbox"/>	<input type="checkbox"/>
QC2 *	The company is a member of an eco declaration system that enforces regular independent quality control such as organized by IT-Företagen (see www.itecodeclaration.org).	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Model number *	6300 SFF		
Issue date *	9/19/2012	Logo	

Product environmental attributes - Legal requirements		Requirement met		
Item		Yes	No	n.a.
P1	Hazardous substances and preparations			
P1.1*	Products do not contain more than; 0.1% lead, 0.01% cadmium, 0.1% mercury, 0.1% hexavalent chromium, 0.1% polybrominated biphenyls (PBB) or 0.1% polybrominated diphenyl ethers (PBDE). (See legal reference and Note B1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.2*	Products do not contain Asbestos (see legal reference). Comment: Legal reference has no maximum concentration value.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.3*	Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), hydrobromofluorocarbons (HBFC), hydrochlorofluorocarbons (HCFC), Halons, carbontetrachloride, 1,1,1-trichloroethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum concentration values.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.4*	Products do not contain more than; 0.005% polychlorinated biphenyl (PCB), 0.005% polychlorinated terphenyl (PCT) in preparations (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.5*	Products do not contain more than 0.1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the chain containing at least 48% per mass of chlorine in the SCCP (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.6*	Textile and leather parts with direct skin contact do not contain Tri-(2,3-dibromopropyl)-phosphate (TRIS), Tris-(aziridinyl)-phosphineoxide (TEPA), polybrominated biphenyl (PBB) (see legal reference). Comment: Legal reference has no maximum concentration values.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P1.7*	Textile and leather parts with direct skin contact do not contain more than 0.003% Azo colorants that split aromatic amines. (See legal reference and Note B1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P1.8*	Wooden parts do not contain arsenic and chromium as a wood preservation treatment as well as pentachlorophenol and derivatives (see legal reference). Comment: Legal reference has no maximum concentration values.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P1.9*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0.5 microgram/cm ² /week (see legal reference). Comment: Max limit in legal reference when tested according to EN1811:1998.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P1.10*	REACH Article 33 information about substances in articles is available at (add URL or mail contact): http://www.hp.com/hpinfo/globalcitizenship/environment/productdata/reachdesktop-pcs.html	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P2	Batteries			
P2.1*	If the product contains a battery or an accumulator, it is labeled with the disposal symbol and if it contains more than 0.0005% of mercury (for button cells only) by weight, or more than 0.004% of lead, it shall be marked with the chemical symbol for the metal concerned, Hg or Pb. Information on proper disposal is provided in user manual. (See legal reference)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P2.2*	Button cells used in the product do not contain more than 2% by weight of mercury. Other batteries or accumulators do not contain more than 0.0005% of mercury or 0.002% of cadmium. (See legal reference)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P2.3*	Batteries and accumulators are easily removable by either users or service providers (as dependent on the design of the product). Exception: Batteries that are permanently installed for safety, performance, medical or data integrity reasons do not have to be "easily removable". (See legal reference)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P3	Safety, EMC connection to the telephone network and labeling			
P3.1*	The product complies with legally required safety standards as specified (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P3.2*	The product complies with legally required standards for electromagnetic compatibility (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P3.3*	If product is intended for connection to a public telecom network or contains a radio transmitter, it complies with legally required standards for radio and telecommunication devices (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P3.4*	The product is labeled to show conformance with applicable legal requirements (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P4	Consumable materials			
P4.1*	If a photo conductor (drum, belt etc.) is used in the product, it does not contain cadmium max 0.01% (see legal reference and Note B1).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P4.2*	If ink/toner is used in the product, it does not contain cadmium max 0.1% by weight (see legal reference).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P4.3*	If the ink/toner formulation/preparation is classified as hazardous according to applicable regulations, the product/packaging is adequately labeled and a Safety Data Sheet (SDS) in accordance with these requirements is available (see legal reference).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P5	Product packaging			
P5.1*	Packaging and packaging components do not contain more than 0.01% lead, mercury, cadmium and hexavalent chromium by weight of these together.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P5.2*	Plastic packaging material is marked according to ISO 11469 referring ISO 1043 (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montreal Protocol (see legal reference). Comment: Legal reference has no maximum concentration values.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>


Note B1: Restriction applies to the homogeneous material, unless other specified and expressed in weight %.

Model number *	6300 SFF		
Issue date *	9/19/2012	Logo	


Product environmental attributes - Market requirements - Environmental conscious design			Requirement met		
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.		Yes	No	n.a.
P6	Treatment information				
P6.1*	Information for recyclers/treatment facilities is available (see legal reference).		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7	Design				
	Disassembly, recycling				
P7.1*	Parts that have to be treated separately are easily separable		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.2*	Plastic materials in covers/housing have no surface coating.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.3*	Plastic parts >100g consist of one material or of easily separable materials.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.4*	Plastic parts >25g have material codes according to ISO 11469 referring ISO 1043.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Product lifetime				
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.8*	Upgrading can be done using commonly available tools		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.9.	Spare parts are available after end of production for: 5 years				<input type="checkbox"/>
P7.10	Service is available after end of production for: years				<input checked="" type="checkbox"/>
	Material and substance requirements				
P7.11*	Product cover/housing material type: Material type: >ABS< Material type: Material type:				
P7.12	Electrical cable insulation materials of power cables are PVC free.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.13	Electrical cable insulation materials of signal cables are PVC free		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.14	All cover/housing plastic parts >25g are free from chlorine and bromine.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.15	All printed circuit boards (without components) >25g are halogen free. as defined in IEC61249-2-21. (See Note B2)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.16	Flame retarded plastic parts >25g in covers / housings are marked according ISO 1043-4: Marking: >PC<, >PBT-I-GF25 FR(40)<, >PBT-GF30 FR(40)<		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.17	Alt. 1 Chemical specifications of flame retardants in printed circuit boards >25g (without components): TBBPA (additive) <input type="checkbox"/> , TBBPA (reactive) <input type="checkbox"/> , Other; chemical name: , CAS #: Alt. 2 Chemical specifications of flame retardants in printed circuit boards (without components) >25g according ISO 1043-4: FR(40), FR(16)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.18	Alt. 1 Flame retarded plastic parts >25g contain the following flame retardant substances/preparations in concentrations above 0.1%: Comment: No legal limits exist, this is a market requirement. 1. Chemical name: , CAS #: 2. Chemical name: , CAS #: 3. Chemical name: , CAS #: Alt. 2 Chemical specifications of flame retardants in plastic parts >25g according ISO 1043-4: >PC<, >PBT-I-GF25 FR(40)<, >PBT-GF30 FR(40)<		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.19	Plastic parts >25g are free from flame retardant substances/ preparations above 0.1% classified as R45, R40, R46, R48, R50, R51, R53, R60, R61 and any combination of these (See Note B3)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.20	Of total plastic parts' weight >25g, recycled material content is 4 %.				
P7.21	Of total plastic parts' weight >25g, biobased material content is 0%.				
P7.22	Light sources are free from mercury If mercury is used specify: Number of lamps: and max. mercury content per lamp: mg		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P8	Batteries				
P8.1*	Battery chemical composition: lithium/manganese dioxide				<input type="checkbox"/>
P8.2	Batteries meet the requirements of the following voluntary program/s:				<input checked="" type="checkbox"/>

Note B2: IEC61249-2-21 has maximum limits for chlorine and bromine but does not address fluorine, iodine and astatine which are included in the group of halogens.

Note B3: 'Starting from January 2009, Risk phrases can be replaced by Hazard phrases according to the Globally Harmonized System (GHS), mandatory by December 2010.

Model number *	6300 SFF		
Issue date *	9/19/2012	Logo	

Product environmental attributes - Market requirements (continued)					Requirement met		
Item					Yes	No	n.a.
P9 Energy consumption							
9.1 For the product the following power levels or energy consumptions are reported:							
Energy mode *	Power level at 100 V AC	Power level at 115 V AC	Power level at 230 V AC	Reference / Standard for energy modes and test method *			
ENERGY STAR® On Mode * (System Idle)	41.67 W	41.77 W	41.64 W	ENERGY STAR® Program Requirements for Computers: Ver. 5.2	<input type="checkbox"/>		
ENERGY STAR® Low Power Sleep Mode* (S3 - Windows "Standby") With Wake On LAN (WOL) Enabled	1.911 W	1.928 W	2.211 W	ENERGY STAR® Program Requirements for Computers: Ver. 5.2	<input type="checkbox"/>		
System Off/Apparent Off Mode (ACPI S5) With Wake On LAN(WOL) Enabled* (Test Unit connected to AC Mains, AC adapter connected to All-In-One PC, if applicable)	0.649 W	0.667 W	0.895 W	ENERGY STAR® Program Requirements for Computers: Ver. 5.2	<input type="checkbox"/>		
ETEC * Annual Energy Consumption (calculated value) for each input voltage	150 kWh/year	150.4 kWh/year	151.2 kWh/year	ENERGY STAR® Program Requirements for Computers: Ver. 5.2	<input type="checkbox"/>		
Display resolution*:	Megapixels (Applies only to Integrated PCs (All-In-One PC))			ENERGY STAR® Program Requirements for Displays (Ver. 5.2)	<input checked="" type="checkbox"/>		
Print Speed *:	Images per minute				<input checked="" type="checkbox"/>		
Default time to enter energy save mode:	minutes			ENERGY STAR® Program Requirements for Computers: Ver. 5.2	<input type="checkbox"/>		
P9.2*	Information about the energy save function is provided with the product.				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P9.3*	The product meets the energy requirements of the following voluntary program/s: ENERGY STAR® version: 5.2 Tier: Product category: Desktop PC Others specify:				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P10 Emissions							
Noise emission – Declared according to ISO 9296							
P10.1	Mode	Mode description	Declared A-weighted sound power level L_{WAd} (B)	Declared A-weighted sound pressure level L_{pAm} (dB)			
				Operator position <input checked="" type="checkbox"/> Desktop or Desk side <input type="checkbox"/>	Bystander positions <input type="checkbox"/> (only if product is not operator attended)		
	Idle	* Fans on, HDD spinning (if applicable)	* 3.8	28			<input type="checkbox"/>
	Operation	* Fans on, HDD spinning	* 3.8	28			<input type="checkbox"/>
	Other mode						
	Measured according to: <input checked="" type="checkbox"/> ISO7779 <input checked="" type="checkbox"/> ECMA-74 <input type="checkbox"/> Other (only if not covered by ECMA-74 with L_{pAm} measurement distance m)						
P10.2	The product meets the acoustic noise requirements of the following voluntary program/s:				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Model number *	6300 SFF		
Issue date *	9/19/2012	Logo	

Product environmental attributes - Market requirements (continued)		Requirement met		
Item		Yes	No	n.a.
Chemical emissions from printing products				
P10.3*	Test performed according to ECMA-328 (ISO/IEC 28360) standard <input type="checkbox"/> , other specify:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P10.4	Typical emission rate (print phase) is (mg/h): Dust Ozone Styrene Benzene TVOC			<input checked="" type="checkbox"/>
P10.5	Chemical emission requirements of the following voluntary program/s are met for : Dust <input type="checkbox"/> Ozone <input type="checkbox"/> Styrene <input type="checkbox"/> Benzene <input type="checkbox"/> TVOC <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Electromagnetic emissions				
P10.6	Computer display meets the requirement for low frequency electromagnetic fields of the following voluntary program/s:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P11 Consumable materials for printing products				
P11.1*	A Safety Data Sheet (SDS) is available for the ink/toner preparation, even if not legally required (see P4.3).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P11.2*	Paper containing post-consumer recycled fibers can be used, provided that it meets the requirements of EN12281.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P11.3*	2-sided (duplex) printing/copying is an integrated product function.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P12 Ergonomics for computing products				
P12.1*	The display meets the ergonomic requirements of ISO 9241-307 for visual display technologies.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P12.2*	The physical input device meets the requirements of ISO 9995 and ISO 9241-410.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P13 Packaging and documentation				
P13.1*	Product packaging material type(s): PAPER/Corrugated weight (kg): 2.3 Product packaging material type(s): PLASTIC/Polyethylene low density weight (kg): 0.056 Product packaging material type(s): PLASTIC/EPS (Expanded Polystyrene) weight (kg): 0.0634 Product packaging material type(s): PLASTIC/Polypropylene weight (kg): 0.015			
P13.2*	Product plastic packaging is free from PVC.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P13.3*	Specify media for user and product documentation (tick box): Electronic <input checked="" type="checkbox"/> , Paper <input type="checkbox"/> , Other <input type="checkbox"/>			<input type="checkbox"/>
P13.4*	For paper user and product documentation, please specify contained percentage of post-consumer recycled fiber: 0 %			<input type="checkbox"/>
Rev. P13.5	User and product documentation do not contain chlorine bleached paper	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P14 Additional information (See Note B4)				
All sections	1. Product environmental information contained in this declaration is valid as of the date the declaration is published. Changes to external standards referenced in the IT Eco-Declaration may invalidate some information contained in this declaration over time.			
P9	1. Many PCs are offered in multiple configurations within the model family. Energy efficiency data listed in this declaration is for an ENERGY STAR® compliant configuration 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. For more information about HP's ENERGY STAR® qualified products, go to hp.com: http://www.hp.com/ and select the applicable market segments and product categories to find PC configurations that meet the ENERGY STAR® specifications. 2. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured model. 3. Energy Efficiency information published on the ECMA 370 The Eco Declaration represents a typically configured product base model meeting ENERGY STAR® specifications if offered within the model family. If optional components or modules are added, like extra hard disks or graphic cards etc, these can change the energy efficiency data listed above. 4. Power consumption in the Off / Apparent Off mode is measured and reported with the network interface controller (NIC) WOL disabled.			
P10	1. Acoustic noise information published on the ECMA 370 The Eco Declaration represents a typically configured product base model only. If optional items with moving parts are added, like extra hard disks or graphic cards with fans etc, these can change acoustic noise values for which HP can take no responsibility.			

Note B4: Additional lines may be inserted to declare further items, by positioning the cursor at the far right of the row and hitting the <Enter> key.

Legal references Europe Annex B

Reference	Declaration item
2002/95/EC (ROHS Directive)	P1.1, P4.1
REACH, Annex XVII	P1.6, P1.8, P4.2
REACH, Annex XVII	P1.4
REACH, Annex XVII	P1.2
REACH, Annex XVII	P1.7
REACH, Annex XVII	P1.9
Regulation (EC) No. 2037/2000, 2038/2000, 2039/2000	P1.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
2006/66/EC (Battery and accumulators Directive)	P2.1, P2.2, P2.3, P3.4, P8.1
2006/95/EC (Low Voltage Directive)	P3.1, 3.4
2004/108/EEC (New EMC Directive)	P3.2, 3.4
1999/5/EC (R&TTE Directive)	P3.3, 3.4
"REACH" Regulation (1907/2006), annex VII	P1.10
(EC) No.1272/2008 regulation on classification, labeling and packaging (CLP)	P4.3
REACH article 31, annex II	P4.3
2004/12/EC (Directive on packaging and packaging waste)	P5.1
(97/129/EC) (Commission Decision on Identification System for Packaging Materials	P5.2
2037/2000/EC Regulation on Substances that Deplete the Ozone Layer	P5.3
2002/96/EC (WEEE directive)	P3.4, P6.1
(EC) No.1272/2008 regulation on classification, labeling and packaging (CLP)	P7.19



DECLARATION OF CONFORMITY

according to ISO/IEC 17050-1 and EN 17050-1

DoC #: HSTND-3201-X-R2

Supplier's Name:

Hewlett-Packard Company

Supplier's Address:

11445 Compaq Center Drive West, Houston, TX 77070, USA

declares, that the product

Product Name and Model:

HP / Compaq LA2006x Display

Regulatory Model Number: ¹⁾

HSTND-3201-X ⁽²⁾

Product Options:

All

conforms to the following Product Specifications and Regulations:

EMC: Class B

CISPR 22:2005 +A1:2006

EN 55022:2006 +A1:2007

EN 55024:1998 +A1:2001 +A2:2003

EN 61000-3-2:2006 + A1:2009 + A2:2009

EN 61000-3-3:2008

Safety:

EN 60950-1:2006 +A11:2009

IEC 60950-1:2005

EN 62311:2008

EN 62479:2010

Energy Use:

Regulation (EC) No. 1275/2008

ENERGY STAR® Program Requirements for Displays (Version 5.0)

The product herewith complies with the requirements of the Low Voltage Directive 2006/95/EC, the EMC Directive 2004/108/EC, the Ecodesign Directive 2009/125/EC and carries the **CE** marking accordingly.

Additional Information:

- 1) This product is assigned a Regulatory Model Number which stays with the regulatory aspects of the design. The Regulatory Model Number is the main product identifier in the regulatory documentation and test reports, this number should not be confused with the marketing name or the product numbers.
- 2) X can signify any letter from A-Z.

Houston, TX

08/24/11

Steve Ortmann, Manager
Houston Product Compliance Center

Local contact for regulatory topics only:

EMEA: Hewlett-Packard GmbH, HQ-TRE, Herrenberger Strasse 140, 71034 Boeblingen, Germany


U.S.: Hewlett-Packard, 3000 Hanover St., Palo Alto 94304, U.S.A. 650-857-1501

www.hp.eu/certificates



Product environmental attributes – THE ECO DECLARATION


The declaration may be published only when all rows and/or fields marked with an * are filled-in (n.a. for not applicable).
Additional information regarding each item may be found under P14.

Brand *	Hewlett-Packard	
Company name *	Hewlett-Packard Company	
Contact information *	Hans Wendschlag http://www.hp.com/hpinfo/globalcitizenship/environment/contactemail.html	
Internet site *	http://www.hp.com/hpinfo/globalcitizenship/environment/	
Additional information		

The company declares (based on product specification or test results based obtained from sample testing), that the product conforms to the statements given in this declaration.	
Type of product *	Display
Commercial name *	HP Compaq LA2006x LCD Display
Model number *	LA2006x
Issue date *	1/4/2011
Intended market *	<input checked="" type="checkbox"/> Global <input type="checkbox"/> Europe <input type="checkbox"/> Asia, Pacific & Japan <input type="checkbox"/> Americas <input type="checkbox"/> Other
Additional information	


This is an uncontrolled copy when in printed form. Please refer to the contact information for the latest version.

Quality Control		Requirement met	
Item		Yes	No
QC1 *	The company enforces an internal quality control scheme to ensure the correctness of this eco declaration	<input checked="" type="checkbox"/>	<input type="checkbox"/>
QC2 *	The company is a member of an eco declaration system that enforces regular independent quality control such as organized by IT-Företagen (see www.itecodeclaration.org).	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Model number *	LA2006x		
Issue date *	1/4/2011	Logo	

Product environmental attributes - Legal requirements		Requirement met		
Item		Yes	No	n.a.
P1	Hazardous substances and preparations			
P1.1*	Products do not contain more than; 0.1% lead, 0.01% cadmium, 0.1% mercury, 0.1% hexavalent chromium, 0.1% polybrominated biphenyls (PBB) or 0.1% polybrominated diphenyl ethers (PBDE). (See legal reference and Note B1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.2*	Products do not contain Asbestos (see legal reference). Comment: Legal reference has no maximum concentration value.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.3*	Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), hydrobromofluorocarbons (HBFC), hydrochlorofluorocarbons (HCFC), Halons, carbontetrachloride, 1,1,1-trichloroethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum concentration values.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.4*	Products do not contain more than; 0.005% polychlorinated biphenyl (PCB), 0.005% polychlorinated terphenyl (PCT) in preparations (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.5*	Products do not contain more than 0.1% short chain chloroparaffins (SCCP) with 10-13 carbon atoms in the chain containing at least 48% per mass of chlorine in the SCCP (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P1.6*	Textile and leather parts with direct skin contact do not contain Tri-(2,3,-dibromopropyl)-phosphate (TRIS), Tris-(aziridiny)-phosphineoxide (TEPA), polybrominated biphenyl (PBB) (see legal reference). Comment: Legal reference has no maximum concentration values.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P1.7*	Textile and leather parts with direct skin contact do not contain more than 0.003% Azo colorants that split aromatic amines. (See legal reference and Note B1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P1.8*	Wooden parts do not contain arsenic and chromium as a wood preservation treatment as well as pentachlorophenol and derivatives (see legal reference). Comment: Legal reference has no maximum concentration values.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P1.9*	Parts with direct and prolonged skin contact do not release nickel in concentrations above 0.5 microgram/cm ² /week (see legal reference). Comment: Max limit in legal reference when tested according to EN1811:1998.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P1.10*	REACH Article 33 information about substances in articles is available at (add URL or mail contact): http://www.hp.com/hpinfo/globalcitizenship/environment/productdata/reachdesktop-pcs.html	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P2	Batteries			
P2.1*	If the product contains a battery or an accumulator, it is labeled with the disposal symbol and if it contains more than 0.0005% of mercury (for button cells only) by weight, or more than 0.004% of lead, it shall be marked with the chemical symbol for the metal concerned, Hg or Pb. Information on proper disposal is provided in user manual. (See legal reference)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P2.2*	Button cells used in the product do not contain more than 2% by weight of mercury. Other batteries or accumulators do not contain more than 0.0005% of mercury or 0.002% of cadmium. (See legal reference)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P2.3*	Batteries and accumulators are easily removable by either users or service providers (as dependent on the design of the product). Exception: Batteries that are permanently installed for safety, performance, medical or data integrity reasons do not have to be "easily removable". (See legal reference)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P3	Safety, EMC connection to the telephone network and labeling			
P3.1*	The product complies with legally required safety standards as specified (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P3.2*	The product complies with legally required standards for electromagnetic compatibility (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P3.3*	If product is intended for connection to a public telecom network or contains a radio transmitter, it complies with legally required standards for radio and telecommunication devices (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P3.4*	The product is labeled to show conformance with applicable legal requirements (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P4	Consumable materials			
P4.1*	If a photo conductor (drum, belt etc.) is used in the product, it does not contain cadmium max 0.01% (see legal reference and Note B1).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P4.2*	If ink/toner is used in the product, it does not contain cadmium max 0.1% by weight (see legal reference).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P4.3*	If the ink/toner formulation/preparation is classified as hazardous according to applicable regulations, the product/packaging is adequately labeled and a Safety Data Sheet (SDS) in accordance with these requirements is available (see legal reference).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P5	Product packaging			
P5.1*	Packaging and packaging components do not contain more than 0.01% lead, mercury, cadmium and hexavalent chromium by weight of these together.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
P5.2*	Plastic packaging material is marked according to ISO 11469 referring ISO 1043 (see legal reference).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montreal Protocol (see legal reference). Comment: Legal reference has no maximum concentration values.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>


Note B1: Restriction applies to the homogeneous material, unless other specified and expressed in weight %.

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Product environmental attributes - Market requirements - Environmental conscious design			Requirement met		
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.		Yes	No	n.a.
P6	Treatment information				
P6.1*	Information for recyclers/treatment facilities is available (see legal reference).		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7	Design				
	Disassembly, recycling				
P7.1*	Parts that have to be treated separately are easily separable		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.2*	Plastic materials in covers/housing have no surface coating.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.3*	Plastic parts >100g consist of one material or of easily separable materials.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.4*	Plastic parts >25g have material codes according to ISO 11469 referring ISO 1043.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Product lifetime				
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P7.8*	Upgrading can be done using commonly available tools		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P7.9.	Spare parts are available after end of production for: 5 years				<input type="checkbox"/>
P7.10	Service is available after end of production for: years				<input checked="" type="checkbox"/>
	Material and substance requirements				
P7.11*	Product cover/housing material type: Material type: ABS +PET Material type: Material type:				
P7.12	Electrical cable insulation materials of power cables are PVC free.		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.13	Electrical cable insulation materials of signal cables are PVC free		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P7.14	All cover/housing plastic parts >25g are free from chlorine and bromine.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.15	All printed circuit boards (without components) >25g are halogen free. as defined in IEC61249-2-21. (See Note B2)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.16	Flame retarded plastic parts >25g in covers / housings are marked according ISO 1043-4: Marking: ABS +PET		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.17	Alt. 1 Chemical specifications of flame retardants in printed circuit boards >25g (without components): TBBPA (additive) <input type="checkbox"/> , TBBPA (reactive) <input type="checkbox"/> , Other; chemical name: , CAS #: Alt. 2 Chemical specifications of flame retardants in printed circuit boards (without components) >25g according ISO 1043-4: FR(16)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.18	Alt. 1 Flame retarded plastic parts >25g contain the following flame retardant substances/preparations in concentrations above 0.1%: Comment: No legal limits exist, this is a market requirement. 1. Chemical name: , CAS #: 2. Chemical name: , CAS #: 3. Chemical name: , CAS #: Alt. 2 Chemical specifications of flame retardants in plastic parts >25g according ISO 1043-4:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.19	Plastic parts >25g are free from flame retardant substances/ preparations above 0.1% classified as R45, R40, R46, R48, R50, R51, R53, R60, R61 and any combination of these (See Note B3)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P7.20	Of total plastic parts' weight >25g, recycled material content is 14% .				
P7.21	Of total plastic parts' weight >25g, biobased material content is 0% .				
P7.22	Light sources are free from mercury If mercury is used specify: Number of lamps: and max. mercury content per lamp: mg		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P8	Batteries				
P8.1*	Battery chemical composition:				<input checked="" type="checkbox"/>
P8.2	Batteries meet the requirements of the following voluntary program/s:				<input checked="" type="checkbox"/>

Note B2: IEC61249-2--21 has maximum limits for chlorine and bromine but does not address fluorine, iodine and astatine which are included in the group of halogens.

Note B3: 'Starting from January 2009, Risk phrases can be replaced by Hazard phrases according to the Globally Harmonized System (GHS), mandatory by December 2010.

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Product environmental attributes - Market requirements (continued)					Requirement met	
Item					Yes	No n.a.
P9 Energy consumption						
9.1 For the product the following power levels or energy consumptions are reported:						
Energy mode *	Power level at 100 V AC	Power level at 115 V AC	Power level at 230 V AC	Reference / Standard for energy modes and test method *		
ENERGY STAR® On Mode *	21.65 W	21.5 W	21.56 W	ENERGY STAR® Program Requirements for Computer Monitors: Ver. 5.0	<input type="checkbox"/>	
ENERGY STAR® Low Power Sleep Mode *	0.41 W	0.41 W	0.43 W	ENERGY STAR® Program Requirements for Computer Monitors: Ver. 5.0	<input type="checkbox"/>	
ENERGY STAR® Off / Apparent Off Mode *	0.34 W	0.34 W	0.38 W	ENERGY STAR® Program Requirements for Computer Monitors: Ver. 5.0	<input type="checkbox"/>	
EPS No-load* (Applies when displays use an external power supply)	NA W	NA W	NA W	ENERGY STAR® Program Requirements for Single Voltage External Ac-Dc and Ac-Ac Power Supplies: Ver. 2.0	<input type="checkbox"/>	
Display resolution* : Megapixels				ENERGY STAR® Program Requirements for Computer Monitors: Ver. 5.0	<input type="checkbox"/>	
Default time to enter energy save mode: minutes				ENERGY STAR® Program Requirements for Computers: Ver. 5.0	<input checked="" type="checkbox"/>	
P9.2*	Information about the energy save function is provided with the product.				<input checked="" type="checkbox"/>	<input type="checkbox"/>
P9.3*	The product meets the energy requirements of the following voluntary program/s: ENERGY STAR® version: 5.0 Tier: Product category: Display Others specify:				<input checked="" type="checkbox"/>	<input type="checkbox"/>
P10 Emissions						
Noise emission – Declared according to ISO 9296						
P10.1	Mode	Mode description	Declared A-weighted sound power level L_{WAd} (B)	Declared A-weighted sound pressure level L_{pAm} (dB)		
				Operator position <input type="checkbox"/> Desktop <input type="checkbox"/> or Desk side <input type="checkbox"/>	Bystander positions <input type="checkbox"/> (only if product is not operator attended)	<input checked="" type="checkbox"/>
	Idle		*			<input checked="" type="checkbox"/>
	Operation		*			<input checked="" type="checkbox"/>
	Other mode					<input checked="" type="checkbox"/>
	Measured according to: <input type="checkbox"/> ISO7779 <input type="checkbox"/> ECMA-74 <input type="checkbox"/> Other (only if not covered by ECMA-74 with L_{pAm} measurement distance m)					
P10.2	The product meets the acoustic noise requirements of the following voluntary program/s:				<input type="checkbox"/>	<input type="checkbox"/>

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Product environmental attributes - Market requirements (continued)		Requirement met		
Item		Yes	No	n.a.
Chemical emissions from printing products				
P10.3*	Test performed according to ECMA-328 (ISO/IEC 28360) standard <input type="checkbox"/> , other specify:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P10.4	Typical emission rate (print phase) is (mg/h): Dust Ozone Styrene Benzene TVOC			<input checked="" type="checkbox"/>
P10.5	Chemical emission requirements of the following voluntary program/s are met for : Dust <input type="checkbox"/> Ozone <input type="checkbox"/> Styrene <input type="checkbox"/> Benzene <input type="checkbox"/> TVOC <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Electromagnetic emissions				
P10.6	Computer display meets the requirement for low frequency electromagnetic fields of the following voluntary program/s:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P11 Consumable materials for printing products				
P11.1*	A Safety Data Sheet (SDS) is available for the ink/toner preparation, even if not legally required (see P4.3).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P11.2*	Paper containing post-consumer recycled fibers can be used, provided that it meets the requirements of EN12281.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P11.3*	2-sided (duplex) printing/copying is an integrated product function.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P12 Ergonomics for computing products				
P12.1*	The display meets the ergonomic requirements of ISO 9241-307 for visual display technologies.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P12.2*	The physical input device meets the requirements of ISO 9995 and ISO 9241-410.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
P13 Packaging and documentation				
P13.1*	Product packaging material type(s): Corrugated carton weight (kg): 1.3 Product packaging material type(s): weight (kg): Product packaging material type(s): weight (kg):			
P13.2*	Product plastic packaging is free from PVC.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P13.3*	Specify media for user and product documentation (tick box): Electronic <input checked="" type="checkbox"/> , Paper <input type="checkbox"/> , Other <input type="checkbox"/>			<input type="checkbox"/>
P13.4*	For paper user and product documentation, please specify contained percentage of post-consumer recycled fiber: 70%			<input type="checkbox"/>
Rev. P13.5	User and product documentation do not contain chlorine bleached paper	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P14 Additional information (See Note B4)				
All sections	1. Product environmental information contained in this declaration is valid as of the date the declaration is published. Changes to external standards referenced in the IT Eco-Declaration may invalidate some information contained in this declaration over time.			

Note B4: Additional lines may be inserted to declare further items, by positioning the cursor at the far right of the row and hitting the <Enter> key.

Legal references Europe Annex B

Reference	Declaration item
2002/95/EC (ROHS Directive)	P1.1, P4.1
REACH, Annex XVII	P1.6, P1.8, P4.2
REACH, Annex XVII	P1.4
REACH, Annex XVII	P1.2
REACH, Annex XVII	P1.7
REACH, Annex XVII	P1.9
Regulation (EC) No. 2037/2000, 2038/2000, 2039/2000	P1.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
2006/66/EC (Battery and accumulators Directive)	P2.1, P2.2, P2.3, P3.4, P8.1
2006/95/EC (Low Voltage Directive)	P3.1, 3.4
2004/108/EEC (New EMC Directive)	P3.2, 3.4
1999/5/EC (R&TTE Directive)	P3.3, 3.4
"REACH" Regulation (1907/2006), annex VII	P1.10
(EC) No.1272/2008 regulation on classification, labeling and packaging (CLP)	P4.3
REACH article 31, annex II	P4.3
2004/12/EC (Directive on packaging and packaging waste)	P5.1
(97/129/EC) (Commission Decision on Identification System for Packaging Materials	P5.2
2037/2000/EC Regulation on Substances that Deplete the Ozone Layer	P5.3
2002/96/EC (WEEE directive)	P3.4, P6.1
(EC) No.1272/2008 regulation on classification, labeling and packaging (CLP)	P7.19

Tecnologia da Informação e Comunicação

Temas



Tecnologia da Informação e Comunicação

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Produtos e modelos habilitados à fruição dos benefícios fiscais da Lei de Informática

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Numero de resultados: 36

Nome Fantasia: FOXCONN**Razão Social:** FOXCONN CMMMSG INDÚSTRIA DE ELETRÔNICOS LTDA**CNPJ:** 08.285.374/0001-02**Endereço:** Av. Marginal da Rodovia dos Bandeirantes, 800, Km 61, Pista Sul, Gleba 2, Bairro Engordadouro JNDIAI/ SP - 13.21-3-0
www.foxconn.com**Contato:** Sun Shao Hui
paulo.sun@foxconn.com
(11)3308-2082 (11) 8177-2590

Sequencial de Produtos 1

Produto: Circuito impresso com componentes elétricos e eletrônicos montados, placa-mãe(mother board)

Processo MCT/Data: 01200.005455/2006-21 02/10/2006

CNPJ da Incentivada: 08.285.374/0001-02

Portaria MCT/MDIC/MF: 091, de 23/2/2007 DO 26/2/2007

Modelos: 404224-201, 5188-6734, 5188-6059, HEIDEN NEO; SEPANG; GOLDEN GATE; MING; KLAMMER NEO; KLAMMER SMITH, KLAMMER CYPHER E MS91, MS91 MB NB 8M-GTT/128MB.(14-07-08: INTEGRATED)(14-07-08: INTEGRATED)(14-07-08: DISCRETE)(14-07-08: HASEK)(14-07-08: GAO SMITH)(14-07-08: GAO NEO)(08-08-08: STONEC(TTER)(15-08-08: TAI LAKE - G31M04D1)(15-08-08: TAI LAKE - 945S02)(25-09-08: FLEMING BON JOVI)(25-09-08: FLEMING MR BIG)(25-09-08: FLEMING MOTLEY CR(E)(17-10-08: GAO CYPHER)(28-11-08: MILAN PANDA)(28-11-08: MILAN ANTELOPE)(08-01-09: EAGLE)(24-03-09: GENEVA)(02-04-09: NEW BALANCE)(17-04-09: MIAMI)(13/09/2009:ARROWHEAD NEO)(13/09/2009:ARROWHEAD SMITH)(13/09/2009:ARROWHEAD CYPHER)(23-10-09: AZTECA NEO)(09-12-09: SKYWALKER)(16-12-09: PALPATINE)(22-12-09: MCBEAN)(11-02-10: MAYZIE)(11-02-10: JET-LI)(23-02-10: WEMBLEY)(15-03-10: MELBO(RNE (MODELO MATX))(15-03-10: MELBO(RNE (MODELO NBTX))(22-09-10: ROTHSCHILD) (13-12-10: T(RNBERRY) (03-02-11: KATSIKI NEO) (03-02-11: KATSIKI SMITH) (03-02-11: KATSIKI CYPHER) (03-02-11: MANCHESTER ATX) (21-02-11: KR(G 15 (MA) (21-02-11: KR(G 14 (MA) (25-02-11: GOLD COAST NEO) (25-02-11: GOLD COAST SMITH) (25-02-11: GOLD COAST CYPHER) (08-04-11: Q(EEN DISCRETE) (08-04-11: Q(EEN (MA) (20-04-11: NIRVANA DISCRETE) (20-04-11: NIRVANA (MA) (20-04-11: MERTON ATX) (16-06-11: MACALLAN DISCRETE) (16-06-11: MACALLAN (MA) (16-06-11: COASTER) (16-06-11: DIAMAS) (16-06-11: PALM BEACH) (16-06-11: SAWGRASS) (03-10-11: T(LSA) (03-10-11: FIRESTONE GP) (07-10-11: FIRESTONE (MA) (19-03-12:

CYPRESS POINT) (30-03-12: LANIKAI 9
 CYPHER) (30-03-12: LANIKAI 9 NEO)
 (30-03-12: LANIKAI 9 SMITH) (30-03-12:
 LANIKAI 7 NEO) (30-03-12: LANIKAI 7
 SMITH) (30-03-12: LANIKAI 7 CYPHER)
 (30-04-12: NEGRIL) (12-05-12: MERCEDES
 14 □MA) (16-05-12: A□DI A4 DISCRETE)
 (24-05-12: A□DI A4 □MA) (01-06-12:
 MANHATTAN) (01-06-12: A□DI A5T DISCRETE)
 (11-06-12: T□RIN) (12-06-12: MERCEDES 15
 DISCRETE) (12-06-12: MERCEDES 15 □MA)
 (02-08-12: TINY) (24-08-12: OLYMPIC □MA)
 (24-08-12: OLYMPIC GP□) (26-08-12:
 DALMORE □MA) (26-08-12: KORBEL □MA)
 (26-08-12: DALMORE □MA) (26-08-12:
 KORBEL □MA) (30-08-12: S□NRISE SFF)

Sequencial de Produtos 2

Produto:	Circuito impresso com componentes elétricos e eletrônicos, montados, do tipo fax-modem
Processo MCT/Data:	01200.000530/2009-19 11/03/2009
CNPJ da Incentivada:	08.285.374/0001-02
Portaria MCT/MDIC/MF:	643, de 3/8/2009 DO□ 4/8/2009
Modelos:	MDC MODEM(24-11-09: T60M951.36-201)

Sequencial de Produtos 3

Produto:	Circuito impresso com componentes elétricos ou eletrônicos, montados para máquinas automáticas para processamento de dados.
Processo MCT/Data:	01200.004860/2007-11 06/09/2007
CNPJ da Incentivada:	08.285.374/0001-02
Portaria MCT/MDIC/MF:	156, de 25/3/2008 DO□ 27/3/2008
Modelos:	OPGA5 (25-09-08: OPGA6)(22-09-10: O□GA6) (28-09-10: OPGA7) (28-10-11: FIRESTONE CONV) (02-08-12: O□GA9 LP) (02-08-12: O□GA9 FH) (02-08-12: O□GA9 LP) (02-08-12: O□GA9 FH) (24-08-12: OLYMPIC SKB) (26-08-12: ML117N)

Sequencial de Produtos 4

Produto:	Circuito impresso com componentes elétricos ou eletrônicos, montados, para aparelhos de telecomunicações
Processo MCT/Data:	01200.002816/2007-69 05/06/2007
CNPJ da Incentivada:	08.285.374/0001-02
Portaria MCT/MDIC/MF:	175, de 28/3/2008 DO□ 31/3/2008
Modelos:	SB5100; SB5120; SBV5120; SBV5121e SBV5220.

Sequencial de Produtos 5

Produto:	Impressora a jato-de-tinta policromática, com conexão □SB, com velocidade de impressão, medida no formato A4, inferior ou igual a 45 ppm e largura de impressão inferior ou igual a 420mm
Processo MCT/Data:	01200.003294/2009-84 09/09/2009
CNPJ da Incentivada:	08.285.374/0001-02
Portaria MCT/MDIC/MF:	816, de 30/9/2010 DO□ 1/10/2010
Modelos:	HP Deskjet D1660

Sequencial de Produtos 6

Produto:	Impressora e copiadora a jato-de-tinta policromática, com conexão □SB, com velocidade de impressão, medida no formato A4, inferior ou igual a 45 ppm e largura de impressão inferior ou igual a 420mm
Processo MCT/Data:	01200.003294/2009-84 09/09/2009
CNPJ da Incentivada:	08.285.374/0001-02
Portaria MCT/MDIC/MF:	816, de 30/9/2010 DO□ 1/10/2010
Modelos:	HP Deskjet F4480

Sequencial de Produtos 7

Produto:	Máquina automática para processamento de dados, digital, portátil, de peso inferior a 3,5 kg, com teclado alfanumérico de no mínimo 70 teclas e com uma tela (écran) de área superior a 140 cm2 e inferior a 560 cm2.
Processo MCT/Data:	01200.005455/2006-21 02/10/2006
CNPJ da Incentivada:	08.285.374/0001-02
Portaria MCT/MDIC/MF:	091, de 23/2/2007 DO□ 26/2/2007
Modelos:	HP PAVILION TX1000 NOTEBOOK PC.(08-01-08: HP PAVILION TX2000 ATê TX2999 NOTEBOOK PC)(25-06-08:

VGN-SR150AP)(09-07-08:
 VGN-SR150AB)(14-07-08:
 VGN-SR150A)(25-09-08: HP 2133)(12-11-08:
 HP PAVILION DV3500 ATÉ 3599BR NB
 PC)(17-01-09: VGN-SR 350A/P)(17-01-09:
 VGN-SR350A/B)(11-02-09: HP PAVILION
 TX2-0000-9999BR)(24-03-09:
 VGN-SR450A/P)(24-03-09: HP PAVILION 1000
 à 9999BR)(24-03-09:
 VGN-SR450A/B)(24-03-09:
 VGN-SR430A/P)(24-03-09:
 VGN-SR430A/B)(02-04-09: HP MINI 1000 à
 9999BR)(07-05-09:
 VGN-SR450A/B)(13-05-09: HP PAVILION
 DV2-1000 à 9999BR)(30-06-09: HP MINI
 110-XXXXBR)(21-08-09:
 VPCCW13FB/R)(21-08-09: HP PROBOOK 4310S
 NOTEBOOK PC)(27-08-09:
 VGN-SR530A/P)(27-08-09:
 VGN-SR530A/B)(16-10-09: HP PAVILION DM3
 -1000BR A 9999BR) (16-10-2009: HP
 PAVILION DM3 -1000BR A 9999BR)
 (10-11-09: HP PROBOOK 6445B NOTEBOOK PC)
 (16-10-2009: HP PAVILION DM3 -1000BR A
 9999BR)(18-12-09: VPCCW23FB/B)(18-12-09:
 VPCCW23FB/P)(18-12-09:
 VPCCW23FB/L)(21-12-09:
 VPCCW23FB/R)(21-12-09:
 VPCCW23FB/W)(21-12-09:
 VPCCW25FB/B)(06-01-10: HP MINI 210 –
 1000BR TO 9999BR)(25-01-10:
 VPCCW13FB/L)(25-01-10:
 VPCCW13FB/W)(25-01-10:
 VPCCW13FB/R)(25-01-10:
 VPCCW13FB/P)(25-01-10:
 VPCCW13FB/B)(02-03-10: HP ELITEBOOK
 8440)(24-03-10: VPCEA23FB/B)(24-03-10:
 VPCEA23FB/G)(30-03-10:
 VPCEA23FB/P)(30-03-10:
 VPCEA23FB/L)(30-03-10:
 VPCEA23FB/W)(30-03-10:
 VPCEA25FB/B)(23-04-10:
 VPCEA20FB/BI)(06-05-10: HP PROBOOK
 4320S)(06-05-10: HP 420 NOTEBOOK
 PC)(14-05-10: HP G42-1000 à 9999BR NB PC
 BRZL)(14-05-10: COMPAQ PRESARIO CQ42-000
 à 9999BR NBPC BRZL)(14-05-10: HP G42-000
 à 9999BR NB PC BRZL)(25-06-10: HP PROBOOK
 6450B à 6999B NOTEBOOK PC)(25-06-10: HP
 PAVILION DV6-3000 à 3999BR NB PC
 BRZL)(25-06-10: HP PAVILION DV5 – 2000 à
 2999BR NB PC BRZL)(25-06-10: HP PAVILION
 DV5-2000 à 2999BR NB PC BRZL)(25-06-10:
 HP PAVILION DV6-3000 à 3999BR NB PC
 BRZL)(28-07-10: HP PAVILION DM4 – 1000 A
 1999BR NB PC BRZL)(23-08-10:
 VPCEA33FB/B) (23-08-10: VPCEA33FB/G)
 (23-08-10: VPCEA33FB/L) (23-08-10:
 VPCEA33FB/P) (23-08-10: VPCEA33FB/W)
 (23-08-10: VPCEA35FB/B) (09-09-10: HP
 MINI 100 à 999) (22-09-10: HP MINI 100E
 à 999E) (08-10-10: VPCEA33FB/V)
 (29-12-10: □NIDADE DIGITAL DE
 PROCESSAMENTOS DE DADOS PORTATIL-
 NOOTEBOOK DE 14 POLEGADAS: M961 LPFP-B)
 (29-12-10: □NIDADE DIGITAL DE
 PROCESSAMENTOS DE DADOS PORTATI-
 NOOTEBOOK DE 14 POLEGADAS: M961 LPFP-G)
 (29-12-10: □NIDADE DIGITAL DE
 PROCESSAMENTOS DE DADOS PORTATI-
 NOOTEBOOK DE 14 POLEGADAS: M961 LPFP-L)
 (29-12-10: □NIDADE DIGITAL DE
 PROCESSAMENTOS DE DADOS PORTATI-
 NOOTEBOOK DE 14 POLEGADAS: M961 LPFP-P)
 (29-12-10: □NIDADE DIGITAL DE
 PROCESSAMENTOS DE DADOS PORTATI-
 NOOTEBOOK DE 14 POLEGADAS: M961 LPFP-V)
 (29-12-10: □NIDADE DIGITAL DE
 PROCESSAMENTOS DE DADOS PORTATI-
 NOOTEBOOK DE 14 POLEGADAS: M961 LPFP-W)
 (28-01-11: VPCEA43FB/B) (28-01-11:
 VPCEA43FB/G) (28-01-11: VPCEA43FB/L)
 (28-01-11: VPCEA43FB/P) (28-01-11:
 VPCEA43FB/V) (28-01-11: VPCEA43FB/W)
 (21-02-11: VPCCA15FB/B) (21-02-11:
 VPCCA15FB/D) (21-02-11: VPCCA15FB/G)
 (21-02-11: VPCCA15GB/XJ) (21-02-11:
 VPCCSB15GB/B) (20-04-11: COMPAQ PRESARIO
 CQ43-100BR à 5999BR NBPC BRZL)(16-06-11:
 VPCCSB25FB/B) (16-06-11: VPCCA25GB/SI)
 (01-07-11: HP PAVILION DM4 – 2000 A
 2999BR NB PC BRZL) (01-07-11: HP
 PAVILION G4 -1000 A 2000BR NB PC BRZL)
 (01-07-11: HP 430 NOTEBOOK PC)

(14-09-11: VPCSA35GB/SI) (14-09-11: VPCSB35FB/B) (30-03-12: HP PAVILION DM1-4100BR à DM1-4199BR NB PC BRZL) (30-04-12: SVE14A15FB/W) (30-04-12: SVE14A15FB/B) (30-04-12: SVE14A15FB/P) (30-04-12: SVE14A15FB/S) (30-04-12: SVE14A15FB/H) (30-04-12: SVE14A16FB/W) (16-05-12: SVS13A17GBB) (16-05-12: SVS13115FBB) (16-05-12: SVS13A17GB/B) (16-05-12: SVS13115FB/B) (18-05-12: SVE14A15FBB) (18-05-12: SVE14A15FBH) (18-05-12: SVE14A15FBP) (18-05-12: SVE14A15FBS) (18-05-12: SVE14A15FBW) (18-05-12: SVE14A16FBW) (18-05-12: SVE11115EBB) (18-05-12: SVE11115EBP) (11-06-12: HP PAVILION G4-2100 à G4-2199 NB PC BRZL) (09-09-12: SVE14A25CBB) (09-09-12: SVE14A25CBH) (09-09-12: SVE14A25CBP) (09-09-12: SVE14A25CBS) (09-09-12: SVE14A25CBW) (09-09-12: SVE14A26CBW) (09-09-12: SVE14A27CBS) (09-09-12: SVS13A25PBS) (09-09-12: SVS13118GBB) (09-09-12: SVS13116GBB) (09-09-12: SVS13125PBB)

Sequencial de Produtos 8

Produto:	Máquina automática para processamento de dados, digital, portátil, de peso inferior a 3,5 kg, com teclado alfanumérico de no mínimo 70 teclas e com uma tela (écran) de área superior a 560 cm ² .
Processo MCT/Data:	01200.005455/2006-21 02/10/2006
CNPJ da Incentivada:	08.285.374/0001-02
Portaria MCT/MDIC/MF:	091, de 23/2/2007 DO <input type="checkbox"/> 26/2/2007
Modelos:	<p>HP PAVILION ZE2400 NOTEBOOK PC, COMPAQ PRESARIO V6000 NOTEBOOK PC, HP PAVILION DV6000 NOTEBOOK PC, HP PAVILION DV2000 NOTEBOOK PC, HP COMPAQ 6510B NOTEBOOK PC, HP COMPAQ 6515B NOTEBOOK PC, HP COMPAQ 6710B NOTEBOOK PC, HP COMPQ 6710S NOTEBOOK PC E VGN-FZ.(19-12-07: VGN-NR230AE)(08-01-08: VGN-NR260AN)(08-01-08: VGN-NR250AE)(08-01-08: HP PAVILION DV6700 Até DV6799 NOTEBOOK PC)(08-01-08: HP PAVILION DV2800 Até DV2899 NOTEBOOK PC)(08-01-08: HP PAVILION DV2700 Até DV2799 NOTEBOOK PC), COMPAQ PRESARIO C700 Até C799 NOTEBOOK PC; HP PAVILION DV2500 Até DV2699 NOTEBOOK PC; HP PAVILION DV6500 Até DV6699 NOTEBOOK PC, VGN-FZ250AE.(01-02-08: VGN-FZ390A<input type="checkbox"/>(01-02-08: VGN-FZ350AE), HP COMPAQ 6910P NOTEBOOK PC, HP 530 NOTEBOOK PC.(14-05-08: VGN-NR320AH)(14-05-08: VGN-NR330AE)(15-05-08: VGN-NR350AE)(23-05-08: VGN-NR360AN)(25-06-08: VGN-FW180AE)(25-06-08: VGN-FW160AE)(09-07-08: VGN-FW140AE)(14-07-08: HP PAVILION DV2900 Até DV2999 NOTEBOOK PC)(09-09-08: HP COMPAQ 6530B NOTEBOOK PC)(09-09-08: HP PAVILION DV5-1000 Até 1999 NOTEBOOK PC)(09-09-08: COMPAQ PRESARIO CQ50-100 Até 199 NOTEBOOK PC)(09-09-08: HP PAVILION DV4-1000 Até 1999 NOTEBOOK PC)(09-09-08: HP COMPAQ 6535B NOTEBOOK PC)(09-09-08: HP COMPAQ 6930P NOTEBOOK PC)(09-09-08: HP COMPAQ HP540 NOTEBOOK PC)(09-09-08: HP COMPAQ 6730S NOTEBOOK PC)(10-09-08: VGN-FW270AE)(10-09-08: VGN-FW280AY)(25-09-08: VGN-NS150AE)(25-09-08: VGN-NS120AH)(25-09-08: VGN-NS130AE)(22-12-08: COMPAQ PRESARIO CQ50-200 Até 299 NOTEBOOK PC)(17-01-09: VGN-NS220AH)(17-01-09: VGN-NS220AK)(17-01-09: VGN-FW360AJ)(17-01-09: VGN-NS230AE)(17-01-09: VGN-FW380AY)(03-02-09: HP PAVILION DV5-1000 Até 1999BR BR NB PC)(03-02-09: HP PAVILION DV4-1000 Até 1999BR NOTEBOOK PC)(03-02-09: HP PAVILION DV4-1XXXBR)(03-02-09: HP PAVILION DV5-1XXXBR BR NB PC BRZL (CROFT))(09-03-09: COMPAQ PRESARIO CQ50- 100 à 9999BR NOTEBOOK PC)(24-03-09: MEGA-M760S-C-02)(24-03-09: COMPAQ PRESARIO CQ40-100 à 999BR)(24-03-09: COMPAQ PRESARIO CQ50-100 à 999BR NOTEBOOK PC)(24-03-09:</p>

MEGA-M760S-C-01)(02-04-09: COMPAQ
 PRESARIO CQ40-100 à 999LA)(17-04-09:
 VGN-NW120AJ)(17-04-09:
 VGN-NW110AH)(24-06-09:
 VGN-NW150AJ)(06-07-09: COMPAQ 510
 NOTEBOOK PC)(21-08-09:
 VPCCW13FB/W)(21-08-09:
 VGN-NW220AF)(21-08-09:
 VGN-NW210AE)(21-08-09:
 VGN-NW260AF)(21-08-09:
 VPCCW13FB/B)(21-08-09:
 VPCCW13FB/P)(21-08-09:
 VPCCW13FB/R)(21-08-09:
 VGN-NW250AF)(12/09/2009:VPCCW13FB/L)
 (29-09-2009: HP PAVILION DV4-1000BR A
 9999BR) (22-09-2009:
 VPCCW13FB/L)(09-12-09:
 VPCCW23FB/R)(09-12-09:
 VPCCW23FB/B)(09-12-09:
 VPCCW23FB/L)(09-12-09:
 VPCCW23FB/P)(22-12-09:
 VPCF112HB/BI)(22-12-09:
 VPCF111FB/B)(06-01-10: HP PAVILION
 DV4-2000 à 2999BR NOTEBOOK PC)(13-01-10:
 VPCEB13EB/WI)(13-01-10:
 VPCEB15FB/BI)(14-01-10:
 VPCEB17FB/B)(06-07-10: HP PAVILION DM4 –
 1000 A 1999BR NB PC BRZL)(28-07-10: HP
 PAVILION DV6 - 3000 - 3999BR NB PC
 BRZL)(28-07-10: HP PAVILION DV5 - 2000 -
 2999BR NB PC BRZL)(22-09-10:
 VPCF130FB/B) (08-12-10: HP PROBOOK 4425S
 A 4499S NOTEBOOK PC) (04-02-11:
 VPCF135FB/B) (21-02-11: VPCF215FB/BI)
 (06-05-11: HP PROBOOK 6360B NOTEBOOK PC)
 (16-06-11: HP PROBOOK 6460B A 6499B
 NOTEBOOK PC) (16-06-11: HP PROBOOK 8460P
 A 8499P NOTEBOOK PC) (16-06-11:
 VPCF223FB/B) (01-07-11: HP ELITEBOOK
 8460W A 8499W MOBILE) (08-07-11: HP
 PAVILION DV6 - 6000 – 6999BR NB PC BRZL)
 (20-07-11: HP ELITEBOOK 8460P A 8499P
 NOTEBOOK PC) (09-08-11: HP PROBOOK 6465B
 à 6515B NOTEBOOK PC) (14-09-11:
 VPCSE15FB/B) (16-12-11: HP PAVILION DV6
 – 6C00 A 6C99BR NB PC BRZL) (18-05-12:
 SVS15115FBB) (01-06-12: HP 450 NOTEBOOK
 PC) (01-06-12: HP PROBOOK 4440S NOTEBOOK
 PC) (09-09-12: SVS15125CBB)

Sequencial de Produtos 9

Produto:	Máquina automática para processamento de dados, digital, portátil, de peso inferior a 750 g, sem teclado, com reconhecimento de escrita, entrada de dados e comandos por meio de uma tela (ecran) de área inferior a 280 cm2.
Processo MCT/Data:	01200.005455/2006-21 02/10/2006
CNPJ da Incentivada:	08.285.374/0001-02
Portaria MCT/MDIC/MF:	091, de 23/2/2007 DO <input type="checkbox"/> 26/2/2007
Modelos:	HP iPAQ hx2700

Sequencial de Produtos 10

Produto:	Modem para rede com fio
Processo MCT/Data:	01200.002816/2007-69 05/06/2007
CNPJ da Incentivada:	08.285.374/0001-02
Portaria MCT/MDIC/MF:	175, de 28/3/2008 DO <input type="checkbox"/> 31/3/2008
Modelos:	SB5100; SB5120; SBV5120; SBV5121e SBV5220.

Sequencial de Produtos 11

Produto:	Terminal portátil de telefonia celular com PDA
Processo MCT/Data:	01200.000776/2007-11 28/02/2007
CNPJ da Incentivada:	08.285.374/0001-02
Portaria MCT/MDIC/MF:	174, de 28/3/2008 DO <input type="checkbox"/> 31/3/2008
Modelos:	HP iPAQ hw6900.

Sequencial de Produtos 12

Produto:	<input type="checkbox"/> nidade de Processamento Digital, de média capacidade, baseada em microprocessador
Processo MCT/Data:	01200.001730/2008-08 06/06/2008
CNPJ da Incentivada:	08.285.374/0001-02
Portaria MCT/MDIC/MF:	642, de 3/8/2009 DO <input type="checkbox"/> 4/8/2009
Modelos:	HP Integrity rx 8640 Server

Sequencial de Produtos 14

Produto:	Unidade de processamento digital, de pequena capacidade, baseada em microprocessador, com unidade de saída por vídeo incorporada
Processo MCT/Data:	01200.000010/2010-31 04/01/2010
CNPJ da Incentivada:	08.285.374/0001-02
Portaria MCT/MDIC/MF:	417, de 28/5/2010 DOU 31/5/2010
Modelos:	HP PAVILION MS210 DESKTOP PC(08-06-10: COMPAQ CQ1-1000 à 1999BR)(06-07-10: HP ALL-IN-ONE 200-5000 à 5999BR)(28-09-10: HP OMNI PC 100-5000BR à 5999BR) (28-10-10: HP COMPAQ 6000 PRO ALL-IN-ONE) (08-11-10: HP COMPAQ 6000 PRO ALL-IN-ONE) (31-12-10: HP TOUCHSMART PC, MODELO 310-1000BR à 1999BR) (08-04-11: HP OMNI PC, MODELO 100-6100BR à 100-6999BR) (13-04-11: HP 100B ALL-IN-ONE PC) (13-04-11: HP OMNI PRO 110 BUSINESS PC) (26-04-11: HP PAVILION ALL-IN-ONE, MODELO G1-2100 à G1-2199) (03-10-11: HP TOUCHSMART 320-1000BR PC BRZL) (03-10-11: HP OMNI 120-1000BR ATé 120-1999BR PC BRZL) (03-10-11: HP OMNI 220-1000BR ATé 220-1999BR PC BRZL) (03-10-11: HP G1-2000BR à G1-2200BR ALL-IN-ONE PC BRZL) (03-10-11: HP G1-2100BR à G1-2199BR ALL-IN-ONE PC BRZL) (09-12-11: HP PRO 3420 ALL-IN-ONE PC) (09-12-11: HP TOUCHSMART ELITE 7320 PC) (09-12-11: HP TOUCHSMART 420-1000BR ATé 420-1999BR PC BRZL) (26-01-12: HP OMNI 110-1100BR PC BRZL) (30-03-12: HP TOUCHSMART 320-1000BR ATé 320-1999 PC BRZL) (30-08-12: HP COMPAQ PRO 8300 ALL-IN-ONE BUSINESS PC) (30-08-12: HP COMPAQ PRO 8300 ALL-IN-ONE BUSINESS PC) (05-09-12: HP COMPAQ PRO 4300 ALL-IN-ONE BUSINESS PC) (05-09-12: HP ALL-IN-ONE, OMNI 18-1000BR PC BZ) (05-09-12: HP PAVILION 20-B000BR ATé 20-B1000BR AIO PC BRZL) (05-09-12: HP PAVILION 23-B000BR ATé 23-B1000BR AIO PC BRZL)

Sequencial de Produtos 15

Produto:	Unidade de processamento digital, de pequena capacidade, baseada em microprocessadores
Processo MCT/Data:	01200.005455/2006-21 02/10/2006
CNPJ da Incentivada:	08.285.374/0001-02
Portaria MCT/MDIC/MF:	091, de 23/2/2007 DOU 26/2/2007
Modelos:	HP COMPAQ DC7700 BUSINESS PC, HP PAVILION PC E HP PAVILION MEDIA CENTER PC, HP COMPAQ DC5700 BUSINESS PC, HP COMPAQ DC5750 BUSINESS PC, HP COMPAQ DC 7800 BUSINESS PC, HP COMPAQ DX2295 MT, COMPAQ PRESARIO PC, HP PAVILION ELITE (10/12/2007).(20-12-07: HP PAVILION SLIMLINE)(08-01-08: HP COMPAQ DX7400 BUSINESS PC)(08-01-08: HP COMPAQ DC5850 BUSINESS PC)(08-01-08: HP COMPAQ DC5800 BUSINESS PC)(09-05-08: HP COMPAQ DX2390 MICROTOWER BUSINESS PC)(18-09-08: HP COMPAQ DC7900 BUSINESS PC)(11-02-09: HP COMPAQ DX7500 BUSINESS PC)(19/09/2009:HP COMPAQ 6000 PRO BUSINESS PC), COMPAQ 505B MICROTOWER PC, HP PRO 3000 BUSINESS PC, HP COMPAQ 8000 ELITE PC, COMPAQ 300B MICROTOWER PC, HP PAVILION B6100 - 999 SERIES MICROTOWER PC, HP COMPAQ 8100 ELITE PC, HP PRO 3130 MT BUSINESS PC, HP COMPAQ 4000 PRO SFF, HP COMPAQ 8200 ELITE PC, HP COMPAQ 6200 PRO BUSINESS PC, HP COMPAQ 6005 PRO BUSINESS PC(01-07-11: HP PAVILION PC

G1000 à G1999) (01-07-11: HP100B SMALL FORM FACTOR PC) (15-07-11: HP PAVILION SLIMLINES S5-1000BR - S5-1999BR PC BZ) (15-07-11: HP PAVILION P7-1000BR-P7-1999BR PC BZ) (18-07-11: HP PRO 3410 SMALL FORM FACTOR BUSINESS PC) (18-07-11: HP PRO 3400 SERIES MICROTOWER BUSINESS PC) (02-09-11: HP G1000BR A G1999BR PC BRZL) (14-09-11: HP PRO 3400 à 3410 SMALL FORM FACTOR BUSINESS PC) (14-09-11: HP PRO 3400 à 3410 SERIES MICROTOWER BUSINESS PC) (30-09-11: COMPAQ CQ1000BR A CQ1999BR PC BRZ) (07-10-11: HP PAVILION P6-2000BR ATÉ P6-2999BR PC BRZL) (30-03-12: HP Z620 WORKSTATION) (30-03-12: HP Z220 WORKSTATION) (30-03-12: HP Z420 WORKSTATION) (30-03-12: HP Z820 WORKSTATION) (01-06-12: HP COMPAQ PRO 6300 A 6999 BUSINESS PC) (11-06-12: HP COMPAQ ELITE 8300 à 8399 SMALL FORM FACTOR BUSINESS PC) (11-06-12: HP COMPAQ PRO 4300 SMALL FORM FACTOR BUSINESS PC) (24-08-12: HP PRO 3500 MICROTOWER DESKTOP PC) (06-09-12: HP PAVILION P7-1400BR ATÉ P7-2000BR PC BZ) (06-09-12: PAVILION SLIMLINES S5-1400BR ATÉ S5-2000BR PC BZ)

Sequencial de Produtos 16

Produto: Unidade digital de armazenamento de dados em meio magnético
Processo MCT/Data: 01200.005249/2008-83 31/12/2008
CNPJ da Incentivada: 08.285.374/0001-02
Portaria MCT/MDIC/MF: 478, de 19/6/2009 DOU 22/6/2009
Modelos: CX4-120(08-07-09: CLARIION CX4-240)(08-07-09: CLARIION CX4-480)(09-07-09: CLARIION CX4-240)(09-07-09: CLARIION CX4-120)(09-07-09: CLARIION CX4-120)(09-07-09: CLARIION AX4)(09-07-09: SYMMETRIX V-MAX)(09-07-09: CLARIION CX4-960)(09-12-09: STORCENTER IX2-200)(30-03-10: AVAMAR)(18-05-10: SCREENPLAY HD MULTIMIDIA)(13-08-10: STORCENTER IX2-200) (22-09-10: STORCENTER IX12-300R) (08-12-10: GREENPLUM) (08-04-11: VNX 5100) (08-04-11: VNX 5300) (08-04-11: VNX 5500) (08-04-11: VNXE) (08-04-11: VNX 5700) (08-04-11: VNX 7500) (22-07-11: SYMMETRIX V-MAXE) (30-08-12: VMAX 40K)

Sequencial de Produtos 17

Produto: Unidade externa de disco magnético rígido
Processo MCT/Data: 01200.005062/2009-61 30/12/2009
CNPJ da Incentivada: 08.285.374/0001-02
Portaria MCT/MDIC/MF: 880, de 20/10/2010 DOU 21/10/2010
Modelos: Prestige Portátil, Prestige Desktop.

Nome Fantasia: FOXCONN (Filial 02)
Razão Social: FOXCONN CMMSG INDÚSTRIA DE ELETRÔNICOS LTDA
CNPJ: 08.285.374/0002-93
Endereço: Av. Caminho de Goiás, 100 Rodovia Anhanguera Km 66 Fernandes JUNDIAÍ/ SP - 13213-870
www.foxconn.com
Contato: Sun Shao Hui
paulo.sun@foxconn.com
(11)3308-2000

Sequencial de Produtos 1

Produto: Circuito Impresso com componentes eletrônicos ou eletrônicos, montados, para máquinas automáticas para processamento de dados
Processo MCT/Data: 01200.003925/2007-01 27/07/2007
CNPJ da Incentivada: 08.285.374/0002-93
Portaria MCT/MDIC/MF: 237, de 18/4/2008 DOU 23/4/2008
Modelos: OPGA5.

Sequencial de Produtos 2

Produto: Circuito Impresso com componentes eletrônicos ou eletrônicos, montados, placa-mãe ("mother boards")

Processo MCT/Data:	01200.003925/2007-01 27/07/2007
CNPJ da Incentivada:	08.285.374/0002-93
Portaria MCT/MDIC/MF:	237, de 18/4/2008 DOU 23/4/2008
Modelos:	HEIDEN NEO; KLAMMER NEO; KLAMMER SMITH; KLAMMER CYPHER; SEPANG; GOLDEN GATE e MING.

Sequencial de Produtos 3

Produto:	Microcomputador portátil, de peso inferior a 3,5 kg, com teclado alfanumérico de no mínimo 70 teclas, e com uma tela de área superior a 140 cm ² e inferior a 560 cm ²
Processo MCT/Data:	01200.000011/2010-86 04/01/2010
CNPJ da Incentivada:	08.285.374/0002-93
Portaria MCT/MDIC/MF:	547, de 16/7/2010 DOU 20/7/2010
Modelos:	HP PAVILION DM3-1000

Sequencial de Produtos 4

Produto:	Microcomputador portátil, de peso inferior a 3,5 kg, com teclado alfanumérico de no mínimo 70 teclas, e com uma tela de área superior ou igual a 560 cm ²
Processo MCT/Data:	01200.000011/2010-86 04/01/2010
CNPJ da Incentivada:	08.285.374/0002-93
Portaria MCT/MDIC/MF:	547, de 16/7/2010 DOU 20/7/2010
Modelos:	HP PAVILION DV4-1000

Sequencial de Produtos 5

Produto:	Microcomputador portátil, sem teclado, com tela sensível ao toque ("touch screen"), de peso inferior a 750g (Tablet PC)
Processo MCT/Data:	01200.000810/2011-33 05/04/2011
CNPJ da Incentivada:	08.285.374/0002-93
Portaria MCT/MDIC/MF:	34, de 23/1/2012 DOU 25/1/2012
Modelos:	(30-03-12: CHOPIN) (30-03-12: MOZART) (30-03-12: A1416) (30-03-12: A1430) (11-07-12: CHOPIN AC) (11-07-12: MOZART AC)

Sequencial de Produtos 6

Produto:	Terminal portátil de telefonia celular
Processo MCT/Data:	01200.000259/2010-47 05/02/2010
CNPJ da Incentivada:	08.285.374/0002-93
Portaria MCT/MDIC/MF:	643, de 26/8/2010 DOU 30/8/2010
Modelos:	K550I; (07-10-11: PICASSO)(16-03-12: DALI)

Sequencial de Produtos 7

Produto:	Unidade de processamento digital, de pequena capacidade, baseada em microprocessador
Processo MCT/Data:	01200.000012/2010-21 04/01/2010
CNPJ da Incentivada:	08.285.374/0002-93
Portaria MCT/MDIC/MF:	913, de 28/10/2010 DOU 1/11/2010
Modelos:	HP Compaq 8000 Elite PC

Sequencial de Produtos 8

Produto:	Unidade Digital de armazenamento de dados em meio magnético
Processo MCT/Data:	01200.005246/2008-40 31/12/2008
CNPJ da Incentivada:	08.285.374/0002-93
Portaria MCT/MDIC/MF:	644, de 3/8/2009 DOU 4/8/2009
Modelos:	CX4-120

Nome Fantasia:	FOXCONN (Filial 03)
Razão Social:	FOXCONN CMMSG INDÚSTRIA DE ELETRÔNICOS LTDA
CNPJ:	08.285.374/0003-74
Endereço:	Rodovia Senador José Ermírio de Moraes Km 10,2 Armazém 2, Bloco C Iporanga Sorocaba/ SP - 18.08-7-1 www.foxconn.com
Contato:	Sun Shao Hui paulo.sun@foxconn.com (11)3308-2000

Sequencial de Produtos 1

Produto:	Cartucho de tinta, com cabeça de impressão incorporada, para impressora a
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	jato-de-tinta
Processo MCT/Data:	01200.005247/2008-94 31/12/2009
CNPJ da Incentivada:	08.285.374/0003-74
Portaria MCT/MDIC/MF:	645, de 3/8/2009 DOU 4/8/2009
Modelos:	CARTUCHOS DE IMPRESSÃO A JATO DE TINTA PRETO HP21; HP21B; HP27; HP27B; HP56; HP60; HP60B; HP60XL; HP74; HP92; HP96; CARTUCHOS DE IMPRESSÃO A JATO DE TINTA TRICOLOR HP22; HP28; HP60; HP75; HP93(23-10-09: HP 60XL CARTUCHO DE IMPRESSÃO A JATO DE TINTA TRICOLOR)(23-10-09: HP 75XL CARTUCHO DE IMPRESSÃO A JATO DE TINTA TRICOLOR)(23-10-09: HP 74XL CARTUCHO DE IMPRESSÃO A JATO DE TINTA PRETO)(09-12-09: HP 56B CARTUCHO DE IMPRESSÃO A JATO DE TINTA PRETO)(09-12-09: HP 22XL CARTUCHO DE IMPRESSÃO A JATO DE TINTA COLORIDO)(09-12-09: HP 57 CARTUCHO DE IMPRESSÃO A JATO DE TINTA COLORIDO)(09-12-09: HP 21XL CARTUCHO DE IMPRESSÃO A JATO DE TINTA PRETO)(09-12-09: HP 56 CARTUCHO DE IMPRESSÃO A JATO DE TINTA PRETO)(23-02-10: HP 94 CARTUCHO DE IMPRESSÃO A JATO DE TINTA PRETO)(23-02-10: HP 98 CARTUCHO DE IMPRESSÃO A JATO DE TINTA PRETO)(23-02-10: HP 97 CARTUCHO DE IMPRESSÃO A JATO DE TINTA COLORIDO)(23-02-10: HP 95 CARTUCHO DE IMPRESSÃO A JATO DE TINTA COLORIDO)(23-02-10: HP 96 CARTUCHO DE IMPRESSÃO A JATO DE TINTA PRETO)(28-07-10: HP 122 CARTUCHO DE IMPRESSÃO A JATO DE TINTA PRETO)(28-07-10: HP 122 CARTUCHO DE IMPRESSÃO A JATO DE TINTA COLORIDO)(28-07-10: HP 122XL CARTUCHO DE IMPRESSÃO A JATO DE TINTA PRETO)(28-07-10: HP 122XL CARTUCHO DE IMPRESSÃO A JATO DE TINTA COLORIDO)(28-07-10: HP 122 CARTUCHO DE IMPRESSÃO A JATO DE TINTA PRETO)(26-04-12: HP 670 CARTUCHO DE IMPRESSÃO A JATO DE TINTA PRETO) (26-04-12: HP 670 CARTUCHO DE IMPRESSÃO A JATO DE TINTA CYAN) (26-04-12: HP 670 CARTUCHO DE IMPRESSÃO A JATO DE TINTA MAGENTA) (26-04-12: HP 670 CARTUCHO DE IMPRESSÃO A JATO DE TINTA YELLOW) (26-04-12: HP 670XL CARTUCHO DE IMPRESSÃO A JATO DE TINTA PRETO) (26-04-12: HP 670XL CARTUCHO DE IMPRESSÃO A JATO DE TINTA CYAN) (26-04-12: HP 670XL CARTUCHO DE IMPRESSÃO A JATO DE TINTA YELLOW) (26-04-12: HP 670XL CARTUCHO DE IMPRESSÃO A JATO DE TINTA MAGENTA) (26-04-12: HP 662 CARTUCHO DE IMPRESSÃO A JATO DE TINTA PRETO) (26-04-12: HP 662XL CARTUCHO DE IMPRESSÃO A JATO DE TINTA PRETO) (26-04-12: HP 662 CARTUCHO DE IMPRESSÃO A JATO DE TINTA COLORIDO) (26-04-12: HP 662XL CARTUCHO DE IMPRESSÃO A JATO DE TINTA COLORIDO) (26-04-12: HP940XL CARTUCHO DE IMPRESSÃO A JATO DE TINTA CYAN) (26-04-12: HP940XL CARTUCHO DE IMPRESSÃO A JATO DE TINTA MAGENTA) (26-04-12: HP940XL CARTUCHO DE IMPRESSÃO A JATO DE TINTA YELLOW) (26-04-12: HP940 CARTUCHO DE IMPRESSÃO A JATO DE TINTA PRETO) (26-04-12: HP940 CARTUCHO DE IMPRESSÃO A JATO DE TINTA CYAN) (26-04-12: HP940 CARTUCHO DE IMPRESSÃO A JATO DE TINTA MAGENTA) (26-04-12: HP940 CARTUCHO DE IMPRESSÃO A JATO DE TINTA YELLOW) (26-04-12: HP940XL CARTUCHO DE IMPRESSÃO A JATO DE TINTA PRETO)

Sequencial de Produtos 2

Produto:	Cartucho revelador para impressora a laser
Processo MCT/Data:	01200.001102/2010-39 13/04/2010
CNPJ da Incentivada:	08.285.374/0003-74
Portaria MCT/MDIC/MF:	914, de 28/10/2010 DOU 1/11/2010
Modelos:	TONER DE IMPRESSÃO PRETO HP LASERJET Q2612A, TONER DE IMPRESSÃO PRETO HP

LASERJET CE505A, TONER DE IMPRESSÃO
PRETO HP LASERJET CB435A, TONER DE
IMPRESSÃO PRETO HP LASERJET CB436A,
TONER DE IMPRESSÃO PRETO HP COLOR
LASERJET CB540A, TONER DE IMPRESSÃO
PRETO HP COLOR LASERJET Q6000A, TONER DE
IMPRESSÃO AMARELO HP COLOR LASERJET
CB542A, TONER DE IMPRESSÃO MAGENTA HP
COLOR LASERJET CB543A, TONER DE
IMPRESSÃO AZUL HP COLOR LASERJET
CB541A, TONER DE IMPRESSÃO PRETO HP
LASERJET Q7553A, TONER DE IMPRESSÃO AZUL
HP COLOR LASERJET Q6001A, TONER DE
IMPRESSÃO MAGENTA HP COLOR LASERJET
Q6003A, TONER DE IMPRESSÃO PRETO HP
LASERJET CC364A, TONER DE IMPRESSÃO
AMARELO HP COLOR LASERJET Q6002A, TONER
DE IMPRESSÃO PRETO HP LASERJET Q5949A,
TONER DE IMPRESSÃO PRETO HP LASERJET
Q7553X, TONER DE IMPRESSÃO PRETO HP
LASERJET CC364X, TONER DE IMPRESSÃO
PRETO HP LASERJET Q5949X, TONER DE
IMPRESSÃO PRETO HP LASERJET CE285A,
TONER DE IMPRESSÃO PRETO HP COLOR
LASERJET Q6470A, TONER DE IMPRESSÃO
PRETO HP LASERJET CE505X, TONER DE
IMPRESSÃO PRETO HP COLOR LASERJET
CC530A, TONER DE IMPRESSÃO PRETO HP
LASERJET Q7551A, TONER DE IMPRESSÃO
PRETO HP LASERJET C7115A, TONER DE
IMPRESSÃO PRETO HP LASERJET C4096A,
TONER DE IMPRESSÃO PRETO HP LASERJET
Q1338A, TONER DE IMPRESSÃO AZUL HP COLOR
LASERJET CC531A, TONER DE IMPRESSÃO
MAGENTA HP COLOR LASERJET CC533A, TONER
DE IMPRESSÃO PRETO HP LASERJET Q7551X,
TONER DE IMPRESSÃO AMARELO HP COLOR
LASERJET CC532A. (25-02-11: TONER DE
IMPRESSÃO MAGENTA HP COLOR LASERJET
CB543AB) (25-02-11: TONER DE IMPRESSÃO
AMARELO HP COLOR LASERJET CB542AB)
(25-02-11: TONER DE IMPRESSÃO PRETO HP
LASERJET Q7553AB) (25-02-11: TONER DE
IMPRESSÃO PRETO HP LASERJET Q7553XB)
(25-02-11: TONER DE IMPRESSÃO PRETO HP
LASERJET CB435AB) (25-02-11: TONER DE
IMPRESSÃO PRETO HP LASERJET CB436AB)
(25-02-11: TONER DE IMPRESSÃO PRETO HP
COLOR LASERJET CB540AB) (25-02-11: TONER
DE IMPRESSÃO AZUL HP COLOR LASERJET
CB541AB) (25-02-11: TONER DE IMPRESSÃO
PRETO HP LASERJET CC364AB) (25-02-11:
TONER DE IMPRESSÃO PRETO HP LASERJET
CC364XB) (25-02-11: TONER DE IMPRESSÃO
PRETO HP LASERJET CE285AB) (25-02-11:
TONER DE IMPRESSÃO PRETO HP LASERJET
CE505AB) (25-02-11: TONER DE IMPRESSÃO
PRETO HP LASERJET Q2612AB) (25-02-11:
TONER DE IMPRESSÃO PRETO HP LASERJET
Q5949AB) (25-02-11: TONER DE IMPRESSÃO
PRETO HP COLOR LASERJET Q6000AB)
(25-02-11: TONER DE IMPRESSÃO AZUL HP
COLOR LASERJET Q6001AB) (25-02-11: TONER
DE IMPRESSÃO AMARELO HP COLOR LASERJET
Q6002AB) (25-02-11: TONER DE IMPRESSÃO
MAGENTA HP COLOR LASERJET Q6003AB)
(25-02-11: TONER DE IMPRESSÃO PRETO HP
LASERJET Q7551AB) (02-03-12: HP 901
CARTUCHO DE IMPRESSÃO A JATO DE TINTA
COLORIDO) (02-03-12: HP 901 CARTUCHO DE
IMPRESSÃO A JATO DE TINTA PRETO)
(02-03-12: HP 901XL CARTUCHO DE
IMPRESSÃO A JATO DE TINTA PRETO)

Nome Fantasia: FOXCONN DO BRASIL (Filial 04)

Razão Social: FOXCONN DO BRASIL INDÚSTRIA E COMÉRCIO DE ELETRÔNICOS LTDA

CNPJ: 04.009.604/0004-00

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Contato: ANTONIO JOSA DOS SANTOS
antonio.josa@foxconn.com
(19)3936-9600

Sequencial de Produtos 1

Produto:	Circuito Impresso com componentes elétricos e eletrônicos montados, do tipo placa-mãe (motherboard).
Processo MCT/Data:	01200.002406/2006 22/05/2006
CNPJ da Incentivada:	04.009.604/0004-00

Portaria MCT/MDIC/MF: 158, de 21/3/2007 DOU 22/3/2007
Modelos: P4M800P7MA-RS2.

Sequencial de Produtos 2

Produto: Circuito impresso com componentes elétricos e eletrônicos, montados, para aparelhos de telecomunicação
Processo MCT/Data: 01200.000145/2008-82 17/01/2008
CNPJ da Incentivada: 04.009.604/0004-00
Portaria MCT/MDIC/MF: 834, de 13/10/2009 DOU 14/10/2009
Modelos: SB5100; SB5120; SBV5120; SBV5121i; SBV5220

Sequencial de Produtos 3

Produto: Circuito impresso com componentes elétricos e eletrônicos, montados, para terminal portátil de telefonia celular
Processo MCT/Data: 01200.002406/2006 22/05/2006
CNPJ da Incentivada: 04.009.604/0004-00
Portaria MCT/MDIC/MF: 158, de 21/3/2007 DOU 22/3/2007
Modelos: C115; C139 e C261.

Sequencial de Produtos 4

Produto: Gabinete plástico para aparelho telefônico celular
Processo MCT/Data: 01200.000145/2008-82 17/01/2008
CNPJ da Incentivada: 04.009.604/0004-00
Portaria MCT/MDIC/MF: 834, de 13/10/2009 DOU 14/10/2009
Modelos: W175; W375; W510

Sequencial de Produtos 5

Produto: Modem, para rede com fio
Processo MCT/Data: 01200.000145/2008-82 17/01/2008
CNPJ da Incentivada: 04.009.604/0004-00
Portaria MCT/MDIC/MF: 834, de 13/10/2009 DOU 14/10/2009
Modelos: SB5100; SB5120; SBV5120; SBV5121i; SBV5220

Sequencial de Produtos 6

Produto: Terminal portátil de telefonia celular.
Processo MCT/Data: 01200.002406/2006-37 22/05/2006
CNPJ da Incentivada: 04.009.604/0004-00
Portaria MCT/MDIC/MF: 158, de 21/3/2007 DOU 22/3/2007
Modelos: C115; C139, C261, K550I, W610I, K200I, K200A, Z320, Z250, E K205.(08-01-08: Z780I)(08-01-08: T280I)(08-01-08: T280A)(25-06-08: R300A)(25-06-08: T303I)(25-06-08: R300I)(25-06-08: T303A)(09-07-08: R306I R306A)(10-09-08: R300 R306 T303)(02-10-08: F305)(11-02-09: C510)(11-02-09: C510A)(11-02-09: C510I)(20-02-09: W395)(17-04-09: W508A)(13-05-09: W205A)(13-05-09: W205)(18-05-09: W205I)(25-01-10: XPERIA X10)(25-01-10: U5A)(16-03-10: VIVAZ)(16-03-10: E10A)(24-03-10: XPERIA X10 MINI)(24-03-10: X10A)(03-05-10: W100I)(06-05-10: W100A)(06-05-10: W100)(24-06-10: U20A)(28-07-10: W150I)(28-07-10: W150)(28-07-10: W150A)(08-10-10: E15A) (11-02-11: LT15A) (24-03-11: MT15A) (20-04-11: SK17A) (26-04-11: MK16A) (16-06-11: R800A) (16-06-11: ST15A) (08-07-11: WT19A) (08-07-11: CK13I) (16-09-11: LT18A) (16-09-11: MT11A) (24-01-12: ST25A) (19-03-12: LT26I) (12-04-12: LT22I)

Nome Fantasia: FOXCONN DO BRASIL (Filial 03)

Razão Social: FOXCONN DO BRASIL INDÚSTRIA E COMÉRCIO DE ELETRÔNICOS LTDA

CNPJ: 04.009.604/0003-11

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 www.foxconn.com

Contato: Antonio Josa dos Santos
 barbara.pedreiro@foxconn.com
 (11)3308-2000

Sequencial de Produtos 1

Produto:	Circuito impresso com componentes elétricos e eletrônicos, montados, para aparelhos de telecomunicação
Processo MCT/Data:	01200.005850/2007-95 15/10/2007
CNPJ da Incentivada:	04.009.604/0003-11
Portaria MCT/MDIC/MF:	290, de 4/5/2009 DOU 5/5/2009
Modelos:	SB5100, SB5120, SBV5120, SBV5121i, SBV5220

Sequencial de Produtos 2

Produto:	Gabinete plástico para telefone Celular
Processo MCT/Data:	01200.005850/2007-95 15/10/2007
CNPJ da Incentivada:	04.009.604/0003-11
Portaria MCT/MDIC/MF:	290, de 4/5/2009 DOU 5/5/2009
Modelos:	W175, W375, W510

Sequencial de Produtos 3

Produto:	Modem, para rede com fio
Processo MCT/Data:	01200.005850/2007-95 15/10/2007
CNPJ da Incentivada:	04.009.604/0003-11
Portaria MCT/MDIC/MF:	290, de 4/5/2009 DOU 5/5/2009
Modelos:	SB5100, SB5120, SBV5120, SBV5121i, SBV5220

topo : imprimir : envie para um amigo : feeds rss :



HP's Compliance with the Restriction of Hazardous Substances (RoHS) Directives

HP is committed to compliance with all applicable laws and regulations, including the upcoming material restrictions requirements of China's Management Methods for Controlling Pollution by Electronic Information Products, otherwise known as China RoHS Phase II and the EU RoHS revision, otherwise known as RoHS 2010.

HP has met the requirements of the several RoHS legislations currently in effect. We have also met our internal goal of eliminating or reducing RoHS substances to the EU specified levels for virtually all HP brand electronic products worldwide, except where it is widely recognized that there is no technically feasible alternative (as indicated by an exemption under the EU RoHS Directive).

As of July 1, 2006:

- All HP products put on the market into the EU and EFTA Member States are in compliance with the EU RoHS requirements.
- HP has also met the requirements of similar Japanese labeling legislation that applies to many Hewlett-Packard personal computing products. You can find HP's J-MOSS declarations at - www.hp.com/go/jisc0950.

As of January 1, 2007:

- HP met California's Electronic Waste Recycling Act of 2003 (Senate Bill 20) substance restrictions, otherwise known as California RoHS, by the effective date.
- HP met its internal voluntary goal to meet the EU requirements on a worldwide basis for virtually all HP branded products, except where it is widely recognized that there is no technically feasible alternative (as indicated by an exemption under the EU RoHS Directive).

As of March 1, 2007:

- HP met the Phase I labeling requirements of China's Management Methods for Controlling Pollution by Electronic Information Products, otherwise known as China RoHS.

As of January 1, 2008:

- HP met the Korean legislation "The Act for Resource Recycling of

Electrical/Electronic Products and Automobiles”, otherwise known as Korean RoHS. You can find HP’s Korean RoHS declarations at - www.hp.com/go/korearohs.

HP continues to plan for further RoHS “like” legislation in other jurisdictions and will meet any additional requirements that arise.

For more than 10 years, HP has actively investigated alternatives to the use of lead in its electrical and electronic products while ensuring that product quality is not compromised. In 1998, HP introduced its General Specification for the Environment (GSE), which restricted suppliers’ use of a number of substances in HP products, including some of the substances restricted by the EU RoHS Directive.

In 2001, HP’s central engineering group and enterprise computing business established a team to begin the formal process of addressing RoHS, including building and testing lead-free product prototypes. In early 2003, this team was incorporated into a company-wide RoHS team that is now managing all aspects of HP’s global response to the EU’s RoHS Directive, as well as other similar legislation emerging around the world.

In addition to the company’s commitment to adherence with RoHS legislation, HP is participating in the development of global standards for the restriction of specific potentially hazardous substances. As regulations similar to the EU’s RoHS Directive are proposed in other countries, HP is working along with others in our industry to promote the harmonized global standards we believe will accelerate the industry transition to EU RoHS compliance on a worldwide basis.

HP’s initiative to address the RoHS Directive is part of the company’s Design for Environment program, which includes using materials more efficiently, finding alternatives for designated materials, designing for energy efficiency, and designing products that can be easily recycled.

More detailed information can be found at www.hp.com/environment:

[2006 Global Citizenship Report](#)

[Product Environmental Impacts](#)

[Design for the Environment](#)

[Materials Innovation/Eliminating Materials of Concern/RoHS](#)

[General Specifications for the Environment](#)

[J-MOSS/JIS-C-0950 Material Declarations](#)

[China RoHS](#) – *English version*

[China RoHS](#) – *Chinese version*

[Korean RoHS Declarations](#)

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80 PLUS Verification and Testing Report

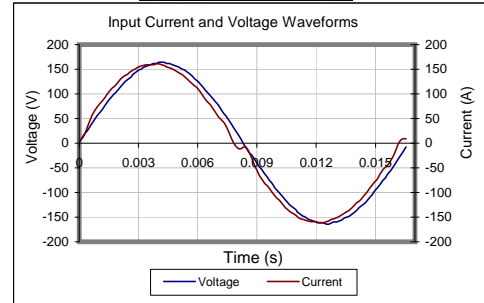
TYPICAL EFFICIENCY (50% Load):	91.25%
AVERAGE EFFICIENCY :	89.97%
80 PLUS COMPLIANT:	YES



Ecos ID #	2307
Manufacturer	HEWLETT-PACKARD COMPANY
Model Number	D10-240P1A
Serial Number	F32821034000024
Year	2010
Type	SFX
Test Date	1/1/2010

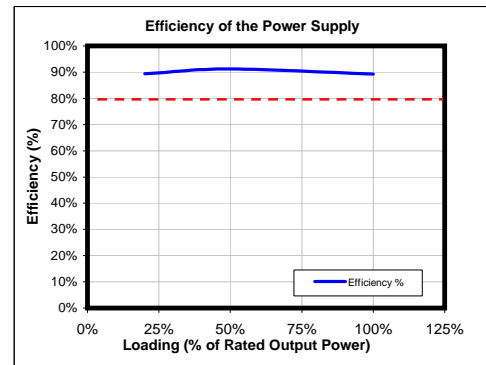
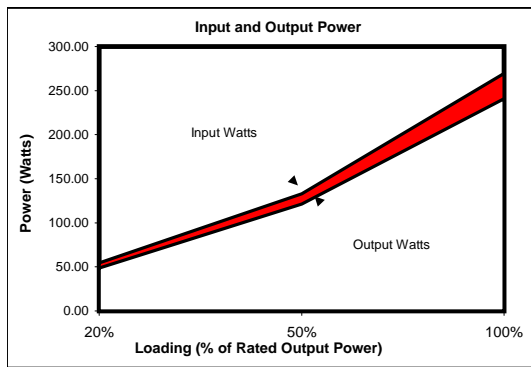
Rated Specifications	Value	Units
Input Voltage	100-240	Volts
Input Current	4	Amps
Input Frequency	50-60	Hz
Rated Output Power	240	Watts

Note: All measurements were taken with input voltage at 115 V nominal and 60 Hz.




Input AC Current Waveform (ITHD = 4.26%, 50% Load)

I _{RMS} A	PF	I _{THD} (%)	Load (%)	Fraction of Load	Input Watts	DC Terminal Voltage (V)/ DC Load Current (A)				Output Watts	Efficiency %
						12V (cumulative of 12V1, 12V2, etc.)	-12V	12Vsb			
0.49	0.97	11.59%	20%	Light	54.40	12.2/3.7	11.6/0	11.3/0.2		48.61	89.36%
1.16	0.99	4.26%	50%	Typical	133.06	12.2/9.4	11.7/0.1	11.3/0.6		121.42	91.25%
2.36	0.99	2.68%	100%	Full	269.60	12.1/18.7	12/0.1	11.3/1.2		240.78	89.31%



These tests were conducted by a third party independent testing firm on behalf of the 80 PLUS[®] Program. 80 PLUS is a certification program to promote highly efficient power supplies (greater than 80% efficiency in the active mode) in technology applications. <http://www.80plus.org/>



Product:	HP Compaq Pro 6300 SFF PC	IEEE 1680-2009 EPEAT Criteria Detail
PRE:	EPEAT, Inc.	
Country:	United States	
Product Type:	Desktops	
Manufacturer:	Hewlett-Packard	
URL:	http://www.hp.com	
Rating:		
Registration Date:	6/4/2012	
Monitor Type:		
Monitor Size:		
Product Status:	 Active	<p>Yes R 4.1.1.1 Compliance with provisions of European RoHS Directive upon its effective date</p> <p>Yes R 4.1.6.1 Elimination of intentionally added SCCP flame retardants and plasticizers in certain applications</p> <p>Yes R 4.2.1.1 Declaration of postconsumer recycled plastic content (%): 3.5</p> <p>Yes R 4.2.2.1 Declaration of renewable/bio-based plastic materials content (%): 0</p> <p>Yes R 4.2.3.1 Declaration of product weight (lbs): 19.29 Pounds</p> <p>Yes R 4.3.1.1 Identification of materials with special handling needs</p> <p>Yes R 4.3.1.2 Elimination of paints or coatings that are not compatible with recycling or reuse</p> <p>Yes R 4.3.1.3 Easy disassembly of external enclosure</p> <p>Yes R 4.3.1.4 Marking of plastic components</p> <p>Yes R 4.3.1.5 Identification and removal of components containing hazardous materials</p> <p>Yes R 4.3.1.8 Minimum 65 percent reusable/recyclable</p> <p>Yes R 4.4.1.1 Availability of additional three year warranty or service agreement</p> <p>Yes R 4.4.2.1 Upgradeable with common tools</p> <p>Yes R 4.5.1.1 ENERGY STAR®: 5.2-Desktops and Notebooks</p> <p>Yes R 4.8.1.1 Reduction/elimination of intentionally added toxics in packaging</p> <p>Yes R 4.8.2.1 Separable packing materials</p> <p>Yes R 4.8.3.1 Declaration of recycled content in packaging 12,0,0;1,30.66,30.66;11,0,0;</p> <p>Yes O 4.1.2.1 Elimination of intentionally added cadmium</p> <p>Yes O 4.1.5.1 Elimination of intentionally added hexavalent chromium</p> <p>Yes O 4.1.6.2 Large plastic parts free of certain flame retardants classified under European Council Directive 67/548/EEC</p> <p>Yes O 4.1.7.1 Batteries free of lead, cadmium and mercury</p> <p>Yes O 4.1.8.1 Large plastic parts free of PVC</p> <p>No O 4.2.1.2 Minimum content of postconsumer recycled plastic</p> <p>No O 4.2.1.3 Higher content of postconsumer recycled plastic</p> <p>No O 4.2.2.2 Minimum content of renewable/bio-based plastic material</p> <p>Yes O 4.3.1.6 Reduced number of plastic material types</p> <p>Yes O 4.3.1.7 Molded/glued in metal eliminated or removable</p> <p>Yes O 4.3.1.9 Minimum 90 percent reusable/recyclable</p> <p>Yes O 4.3.2.1 Manual separation of plastics</p> <p>Yes O 4.3.2.2 Marking of plastics</p> <p>Yes O 4.4.2.2 Modular design</p> <p>Yes O 4.4.3.1 Availability of replacement parts</p> <p>Yes O 4.5.2.1 Renewable energy accessory available</p> <p>No O 4.5.2.2 Renewable energy accessory standard</p> <p>Yes O 4.8.2.2 Packaging 90% recyclable and plastics labeled</p> <p>Yes O 4.8.3.2 Minimum postconsumer content guidelines</p> <p>No O 4.8.4.1 Provision of take-back program for packaging</p> <p>No O 4.8.5.1 Documentation of reusable packaging</p>
Exceptions:		

IEEE 1680-2006 EPEAT Criteria Summary

IEEE 1680-2009 Criteria Category Summary	Optional Points
4.1 Reduction/elimination of environmentally sensitive materials	5/5
4.2 Materials selection	0/3
4.3 Design for end of life	5/5
4.4 Product longevity/life cycle extension	2/2
4.5 Energy conservation	1/2
<hr/>	
Corporate Annual Report Points	
4.6 End of life management	1/1
4.7 Corporate performance	2/2
<hr/>	
4.8 Packaging	2/4
Total Optional Points: 18/24	

IEEE 1680 EPEAT Corporate Annual Report Criteria Detail

YesR 4.6.1.1 Provision of product take-back service

YesO 4.6.1.2 Auditing of recycling vendors

YesR 4.6.2.1 Provision of rechargeable battery take-back service: RBRC Licensee

YesR 4.7.1.1 Demonstration of corporate environmental policy consistent with ISO 14001

YesR 4.7.2.1 Self-certified environmental management system for design and manufacturing organizations

YesO 4.7.2.2 Third-party certified environmental management system for design and manufacturing organizations

YesR 4.7.3.1 Corporate report consistent with Performance Track or GRI

YesO 4.7.3.2 Corporate report based on GRI

This Product is also registered in:

- [Australia](#)
- [Austria](#)
- [Belgium](#)
- [Brazil](#)
- [Bulgaria](#)
- [Canada](#)
- [China](#)
- [Cyprus](#)
- [Czech Republic](#)
- [Denmark](#)
- [Estonia](#)
- [Finland](#)
- [France](#)
- [Germany](#)
- [Greece](#)
- [Hungary](#)
- [Ireland](#)
- [Italy](#)
- [Japan](#)
- [Latvia](#)

- [Lithuania](#)
- [Luxembourg](#)
- [Malta](#)
- [Netherlands](#)
- [New Zealand](#)
- [Norway](#)
- [Poland](#)
- [Portugal](#)
- [Romania](#)
- [Singapore](#)
- [Slovakia](#)
- [Slovenia](#)
- [Spain](#)
- [Sweden](#)
- [Switzerland](#)
- [Taiwan](#)
- [United Kingdom](#)

Product:	HP Compaq LA2006x LCD Display	
PRE:	EPEAT, Inc.	IEEE 1680-2009 EPEAT Criteria Detail
Country:	United States	
Product Type:	Displays	Yes R 4.1.1.1 Compliance with provisions of European RoHS Directive upon its effective date
Manufacturer:	Hewlett-Packard	Yes R 4.1.3.1 Reporting on amount of mercury used in light sources (mg) 1,0,
URL:	http://www.hp.com	Yes R 4.1.6.1 Elimination of intentionally added SCCP flame retardants and plasticizers in certain applications
Rating:		Yes R 4.2.1.1 Declaration of postconsumer recycled plastic content (%): 14
Registration Date:	1/4/2011	Yes R 4.2.2.1 Declaration of renewable/bio-based plastic materials content (%): 0
Monitor Type:	NA	Yes R 4.2.3.1 Declaration of product weight
Monitor Size:	NA	
Product Status:	 Active	
Exceptions:		
(lbs): 11.68 Pounds		
Yes R 4.3.1.1 Identification of materials with special handling needs		
Yes R 4.3.1.2 Elimination of paints or coatings that are not compatible with recycling or reuse		
Yes R 4.3.1.3 Easy disassembly of external enclosure		
Yes R 4.3.1.4 Marking of plastic components		
Yes R 4.3.1.5 Identification and removal of components containing hazardous materials		
Yes R 4.3.1.8 Minimum 65 percent reusable/recyclable		
Yes R 4.4.1.1 Availability of additional three year warranty or service agreement		
Yes R 4.5.1.1 ENERGY STAR®: 5.1-Monitors		
Yes R 4.8.1.1 Reduction/elimination of intentionally added toxics in packaging		
Yes R 4.8.2.1 Separable packing materials		
Yes R 4.8.3.1 Declaration of recycled content in packaging Greater than or equal to 25% post-consumer recycled corrugated cardboard		
Yes O 4.1.2.1 Elimination of intentionally added cadmium		
Yes O 4.1.3.2 Low threshold for amount of mercury used in light sources		
Yes O 4.1.3.3 Elimination of intentionally added mercury used in light sources		
Yes O 4.1.4.1 Elimination of intentionally added lead in certain applications		
Yes O 4.1.5.1 Elimination of intentionally added hexavalent chromium		
Yes O 4.1.6.2 Large plastic parts free of certain flame retardants classified under European Council Directive 67/548/EEC		
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No O 4.5.2.1 Renewable energy accessory available		
No O 4.5.2.2 Renewable energy accessory standard		
Yes O 4.8.2.2 Packaging 90% recyclable and plastics labeled		
Yes O 4.8.3.2 Minimum postconsumer content guidelines		
No O 4.8.4.1 Provision of take-back program for packaging		
No O 4.8.5.1 Documentation of reusable packaging		

IEEE 1680-2006 EPEAT Criteria Summary

IEEE 1680-2009 Criteria Category Summary	Optional Points
4.1 Reduction/elimination of environmentally sensitive materials	7/8
4.2 Materials selection	1/3
4.3 Design for end of life	5/5
4.4 Product longevity/life cycle extension	1/1
4.5 Energy conservation	0/2
<hr/>	
Corporate Annual Report Points	
4.6 End of life management	1/1
4.7 Corporate performance	2/2
<hr/>	
4.8 Packaging	2/4
Total Optional Points: 19/25	

IEEE 1680 EPEAT Corporate Annual Report Criteria Detail

YesR 4.6.1.1 Provision of product take-back service

YesO 4.6.1.2 Auditing of recycling vendors

YesR 4.6.2.1 Provision of rechargeable battery take-back service: RBRC Licensee

YesR 4.7.1.1 Demonstration of corporate environmental policy consistent with ISO 14001

YesR 4.7.2.1 Self-certified environmental management system for design and manufacturing organizations

YesO 4.7.2.2 Third-party certified environmental management system for design and manufacturing organizations

YesR 4.7.3.1 Corporate report consistent with Performance Track or GRI

YesO 4.7.3.2 Corporate report based on GRI

This Product is also registered in:

- [Australia](#)
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- [China](#)
- [Cyprus](#)
- [Czech Republic](#)
- [Denmark](#)
- [Estonia](#)
- [Finland](#)
- [France](#)
- [Germany](#)
- [Greece](#)
- [Hungary](#)
- [Ireland](#)

- [Italy](#)
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- [Malta](#)
- [Netherlands](#)
- [New Zealand](#)
- [Norway](#)
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- [Portugal](#)
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- [Singapore](#)
- [Slovakia](#)
- [Slovenia](#)
- [Spain](#)
- [Sweden](#)
- [Switzerland](#)
- [Taiwan](#)
- [United Kingdom](#)

[Comparar fila \(0\)](#)[Enviar comentários](#)

Português

Para pesquisar produtos, digite aqui

[Para consumidores](#)[Intel® Processors](#)[3rd Generation Intel® Core™ i5 Processors](#)[Intel® Core™ i5-3400 Desktop Processor Series](#)[i5-3470](#)

Intel® Core™ i5-3470 Processor (6M Cache, up to 3.60 GHz)

ESPECIFICAÇÕES

Essentials

Memory Specifications

Graphics Specifications

Expansion Options

Package Specifications

Advanced Technologies

PRODUTOS COMPATÍVEIS

DIAGRAMAS DE BLOCOS

PEDIDOS / SPECS / ESCALONAMENTOS

Especificações



Essentials

Status	Launched
Data de inicialização	Q2'12
Número do processador	i5-3470
Número de núcleos	4
Nº de threads	4
Velocidade do relógio	3.2 GHz
Frequência turbo max	3.6 GHz
Cache inteligente Intel®	6 MB
Razão barramento/núcleo	32
DMI	5 GT/s
Conjunto de instruções	64-bit
Extensões do conjunto de instruções	SSE4.1/4.2, AVX
Opções integradas disponíveis	 No
Litografia	22 nm
TDP máximo	77 W
Preço recomendado para o cliente	TRAY: \$184,00 BOX : \$195,00

Memory Specifications

Tamanho máximo de memória (de acordo com o tipo de memória)	32 GB
Tipos de memória	DDR3-1333/1600
Nº de cabais de memória	2
Largura de banda máxima da memória	25,6 GB/s
Suporte para memória ECC	No

Graphics Specifications

Gráficos de processador	Intel® HD Graphics 2500
Frequência da base gráfica	650 MHz
Máxima frequência dinâmica da placa gráfica	1.1 GHz
Intel® Quick Sync Video	
Tecnologia Intel® InTru™ 3D	
Intel® Insider™	
Intel® Wireless Display	
Interface de Vídeo Flexível Intel® (Intel® FDI)	
Tecnologia de Alta Definição Intel® Clear Video	
Número de telas suportadas	3

Expansion Options

Revisão de PCI Express	3.0
Configurações de PCI Express	1x16, 2x8, 1x8 & 2x4

COMPARAR PRODUTOS

- [Acrescente para comparar](#)
- [Compare agora \(0\)](#)

LINKS RÁPIDOS

- [Produtos com denominação anterior Ivy Bridge](#)
- [Download de ficha técnica](#)
- [Procure placas compatíveis](#)

INFORMAÇÕES SOBRE PCN/MDDS








SR0T8

921372: [PCN](#) | [MDDS](#)
922462: [PCN](#)

Package Specifications

Configuração máxima da CPU	1
T _{CASE}	67.4
Tamanho do encapsulamento	37.5mm x 37.5mm
Soquetes suportados	FCLGA1155
Low Halogen Options Available	Consulte MDDS

Advanced Technologies

Tecnologia Intel® Turbo Boost	2.0
Tecnologia Intel® vPro	Yes
Tecnologia Hyper-Threading Intel®	 No
Tecnologia de virtualização Intel® (VT-x)	 Yes
Tecnologia de virtualização Intel® para E/S direcionada (VT-d)	 Yes
Intel® Trusted Execution Technology	 Yes
Novas instruções AES	 Yes
Intel® 64	 Yes
Tecnologia antirroubo Intel®	Yes
Estados ociosos	Yes
Tecnologia Enhanced Intel SpeedStep®	 Yes
Tecnologias de monitoramento térmico	Yes
Acesso de Memória Rápida Intel®	Yes
Acesso de Memória Flexível Intel®	Yes
Bit de desativação de execução	Yes
Intel® VT-x com Tabelas de página estendida (EPT)	Yes

SKUs "anunciados" ainda não estão disponíveis. Favor consultar a data de inicialização para a disponibilidade no mercado.

O RCP (Recommended Customer Price, preço recomendado) é o guia de preços para produtos Intel. Os preços são para cliente Intel diretos e estão sujeitos a alteração sem aviso prévio. Não estão incluídos os impostos, fretes etc. Os preços podem variar para outros tipos de pacotes e quantidades expedidas, e podem ser aplicáveis arranjos promocionais especiais. Listar esses índices RCP não constitui uma oferta oficial da Intel. Consulte seu representante Intel adequado para obter um preço oficial.

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Os números dos processadores Intel não são indicação de desempenho. Os números dos processadores diferenciam os recursos em cada família de processadores e não entre as diferentes famílias de processadores. Consulte <http://www.intel.com.br/content/www/br/pt/processors/processor-numbers.html> para mais detalhes.

A tecnologia Hyper-Threading (Tecnologia HT) exige um sistema de computador equipado com um processador Intel® compatível com a Tecnologia HT e chipset, BIOS e sistema operacional habilitados para essa tecnologia. O desempenho varia dependendo do hardware e software específicos utilizados. Consulte <http://www.intel.com.br/content/www/br/pt/architecture-and-technology/hyper-threading/hyper-threading-technology.html> se precisar de mais informações e detalhes sobre os processadores compatíveis com a tecnologia HT.

A computação de 64 bits na arquitetura Intel® exige um sistema de computador equipado com um processador, chipset, BIOS, sistema operacional, drivers de dispositivos e aplicações habilitados para a arquitetura Intel® 64. Os processadores não funcionarão (nem a operação de 32 bits) sem um BIOS habilitado para a arquitetura Intel® 64. O desempenho varia de acordo com as configurações de hardware e software. Consulte o fornecedor do sistema para obter mais informações.

Frequência Máxima do Turbo está relacionada à frequência máxima no núcleo único, que pode ser alcançada com a Tecnologia Intel® Turbo Boost, que exige um PC equipado com um processador com capacidade para essa tecnologia. O desempenho da tecnologia Intel Turbo Boost varia de acordo com o hardware, o software e a configuração geral do sistema. Consulte o fabricante do PC para verificar se o seu sistema inclui a Tecnologia Intel Turbo Boost. Consulte o site <http://www.intel.com.br/content/www/br/pt/architecture-and-technology/turbo-boost/turbo-boost-technology.html> para obter mais informações.

Saída de gráficos, múltiplas telas, memória ECC, configurações específicas de PCI Express, tecnologia Intel® vPro™, Intel® Trusted Execution Technology, e tecnologia de virtualização Intel® para E/S dirigida (VT-d) poderão não ser disponíveis em todos os sistemas de computadores. Favor referenciar a compatibilidade das especificações de sistema, motherboard ou chipset.

Para ativar a funcionalidade Bit de desativação de execução, são necessários um computador equipado com um processador com esse recurso e um sistema operacional compatível. Consulte o fabricante do seu PC para confirmar se seu sistema tem o recurso Bit de desativação de execução.

A Tecnologia de virtualização Intel® exige um sistema de computador equipado com um processador, chipset, BIOS, VMM (virtual machine monitor) e, para algumas utilizações, determinados softwares da plataforma habilitados para essa tecnologia. A funcionalidade, o desempenho ou outros benefícios variam dependendo das configurações de hardware e software. O BIOS e as aplicações VMM habilitadas para a Tecnologia de virtualização Intel estão atualmente em desenvolvimento.

O TDP do sistema e máx. se baseia nos piores casos. O TDP real pode ser inferior, se nem todas as E/Ss para chipsets forem utilizadas.

Todas as informações fornecidas estão sujeitas a alterações a qualquer momento, sem aviso prévio. A Intel pode alterar o ciclo de vida da fabricação, as especificações e as descrições dos produtos a qualquer momento, sem aviso prévio. As informações aqui contidas são fornecidas "no estado em que se encontram" e a Intel não atribui qualquer declaração ou garantias relacionadas à precisão das informações, nem sobre os recursos dos produtos, disponibilidade, funcionalidade ou compatibilidade dos produtos listados. Para obter mais informações sobre os produtos ou sistemas, entre em contato com o fornecedor do sistema.

Halógeno Baixo: Aplica-se apenas a retardantes de chamas à base de bromo e cloro (BFRs/CFRs) e PVC no produto final. Os componentes da Intel, assim como os componentes adquiridos no produto final montado, atendem aos requisitos da norma JS-709 e o PCB/substrato atende aos requisitos da norma IEC 61249-2-21. A substituição dos retardantes de chamas halógenos e/ou de PVC pode não ser benéfica ao meio-ambiente.

Alguns produtos suportam as novas instruções AES com uma atualização da Configuração do processador, em particular, i7-2630QM/i7-2635QM, i7-2670QM/i7-2675QM, i5-2430M/i5-2435M, i5-2410M/i5-2415M. Favor entrar em contato com o OEM para o BIOS que inclui a mais recente atualização da Configuração do processador.

*Marcas Registradas

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Corporation



Qualified Product Details

Computers — Compaq Pro HP Compaq Pro 6300 SFF Business PC, HP Compaq Pro 6380 SFF Business PC
Model #: 6300 SFF, 6380 SFF

Desktop PC

Product Specifications

Model #: 6300 SFF, 6380 SFF	
Product Type:	Desktop
Brand Name:	Compaq Pro
Model Name/Number:	HP Compaq Pro 6300 SFF Business PC, HP Compaq Pro 6380 SFF Business PC/6300 SFF, 6380 SFF (most feature-rich model in the family) Other models in the family:
Operating System Name:	Windows 7
Processor Speed Per Core (GHz):	3.4GHz/2 Cores
Video Card Dedicated Non-Shared Memory (MB):	512MB
Default Video Card Display Output Resolution:	1280 x 1024
Networking/Control Protocol Other:	1000 Mbit/s
Total Hard Drive Storage in Product (GB):	500GB

Date on the Market: May 28, 2012

Manufacturer Web Site:

<http://www.hp.com/go/energystar> EXIT ↗

The following product specifications are for the most feature-rich model in this model family or series. Lower configuration models would meet ENERGY STAR, but may not have all of the features listed. Please contact the manufacturer or your local retailer for exact model details.

[More About Qualified Computers](#)

⬅ RETURN TO SEARCH RESULTS

Category - at Highest Energy-consuming Configuration

[More information about categories](#)

[More information about TEC and Idle](#)

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Overview

Models

HP ProtectTools Version 5.0 (1 User) Software

VR893AA

Introduction

HP ProtectTools client security software helps prevent unauthorized access to your computer, providing enhanced protection for your PC, data and credentials. It uses industry standards-based technologies to provide an easy-to-use pre-boot security feature, single sign-on convenience, full volume encryption, multifactor authentication, encrypted communication and more.

HP ProtectTools Security Manager

HP ProtectTools Security Manager brings together all the HP client security modules into a consolidated user interface and underlying architecture. It provides all the HP ProtectTools client security solutions to protect your investment, your assets and your data. Customize and implement the level of security that best meets your requirements.

Other modules of HP ProtectTools include:

LoJack Pro for HP ProtectTools

View, manage and track on your registered PCs with LoJack Pro for HP ProtectTools. Helps local authorities perform a physical recovery of your system in case it becomes stolen. If retrieval is not possible, perform remote data deletion so your important and confidential information does not end up in the wrong hands.

Privacy Manager for HP ProtectTools

Make sure you're communicating with the right person through digitally signed email and documents with Privacy Manager for HP ProtectTools. You can also start an encrypted chat session to help protect your private conversations and transfer files more securely.

File Sanitizer for HP ProtectTools

Efficiently and effectively deletes individual files, folders and other vulnerable personal information from your computer which could otherwise potentially be used to compromise your security.

Credential Manager for HP ProtectTools

Credential Manager acts as a personal password vault by automatically remembering your credentials for protected websites and network resources. Additionally, Credential Manager provides you with the ability to create double protection or multi-factor authentication to help protect against unauthorized access to your critical logon authentications by combining your password with other security authentication measures such as fingerprint, smart card, etc.

Drive Encryption for HP ProtectTools

Encryption is important these days as theft of PCs becomes more common. If everything on your hard drive is encrypted, a thief will be unable to gain access to your data. Even if the hard drive is removed and installed on another PC and/or if the hard drive is taken to a data recovery center, everything – data, applications, operating systems - will be virtually unreadable. Drive Encryption for HP ProtectTools is a module of the HP security software that gives you the ability to protect your data.

Device Access Manager for HP ProtectTools

In today's open office environments, anyone can walk up to a PC, insert a USB key, writeable disc or other removable media, and copy information from your PC or corporate network. To protect your data and your business, selectively control the use of writable storage devices on all PCs throughout your computing environment. Device Access Manager for HP ProtectTools software helps you make sure only authorized users are able to freely copy and store data.

Java Card Security for HP ProtectTools

Ensure your employees have access to the data they need but an unauthorized user will be locked out using dual-factor authentication through combining an HP Java Card with your password. This utilization of two means of authentication creates strong access control to the critical data stored on the PC or accessible within the infrastructure. With Java Card Security for HP ProtectTools software, your IT team can initialize and configure HP ProtectTools Java Cards, set and

Overview

change PINs and credentials, and support different levels of authorization for various groups of your employees to access their computing systems.

Embedded Security for HP ProtectTools

The TPM Embedded Security Chip uses a root key protected in silicon to enhance access control and protect the data. Using the power of the embedded security chip is another way to strengthen your access control by tying it to your password for stronger authentication. This chip also enhances the HP Drive Encryption password along with the Microsoft operating system file and folder encryption, strengthens email digital certificates and supports Vista BitLocker drive encryption. It lays the foundation for authentication of TPM-enabled PCs to the corporate network by providing important client security functionality to help protect against unauthorized access to sensitive user data or credentials. Embedded Security also provides a tool to create totally hidden Personal Secure Drive that cannot be viewed by anyone until decrypted.

Key Benefits

HP ProtectTools Security Manager

- HP ProtectTools Security Manager allows you to manage the security features from a single user interface, including Privacy Manager, File Sanitizer, Credential Manager, Device Access Manager, Java Card, Embedded Security and Drive Encryption.
- Console provides a simple way to access, view, backup identities and manage the client security modules of HP ProtectTools software.

LoJack Pro for HP ProtectTools

- View, manage and report on your registered PCs
- Help local authorities perform a physical recovery of your stolen hardware
- Perform remote data deletion so your important and confidential information does not end up in the wrong hands

Privacy Manager for HP ProtectTools

- Helps protect your private conversations
- Lets you transfer files more securely

File Sanitizer for HP ProtectTools

- Effectively deletes individual files, folders and personally identifiable information from your computer hard drive

Credential Manager for HP ProtectTools

- Provides ability to create multi-factor authentication or user-defined strengthened security capabilities beyond just password, including:
 - Biometrics
 - Smart card
 - TPM
 - OS Windows password and domain login support capable
- Serves as single sign-on password vault which provides easy access to secured websites and applications, and eliminates frequency of lost or forgotten passwords

Device Access Manager for HP ProtectTools

- Prevents the removal of data and the introduction of viruses into the system from external storage media
- Administrator can disable access to writeable devices for specific individuals or groups
- Available in personal (managed at client level) and enterprise editions

Drive Encryption for HP ProtectTools

- Encrypted hard drive is virtually unreadable and inaccessible to an unauthorized person
- Helps meet compliance with most data security requirements



Overview

- Keeps files encrypted on the hard drive and automatically decrypts files as they are used

Java Card Security for HP ProtectTools

- Client-based smart card application that can initialize and set and change pin number HP ProtectTools Java Card.
- Smart card-based solution is based on open standards, resulting in easy implementation, integration and maintenance

Embedded Security for HP ProtectTools

- Strong Authentication: TPM Embedded Security Chip – The TPM Embedded Security Chip refers to the Trusted Platform Module (TPM), and integrates the core elements of trust into the subsystem meeting Trusted Computing Group (TCG) 1.2 conformance standards
- Creates a unique root encryption key (random numbers) and stores it in silicon which is extremely difficult to compromise
- Strengthens Drive Encryption for HP ProtectTools by tying the encryption password to the TPM
- File and folder encryption – helps protect local data as well as sharing across the Internet
- Personal Secure Drive: Creates a virtual drive with a password that is TPM-protected so only the user/administrator knows the drive location
- TPM strengthened encrypted email – Master encryption key for email securely generated and stored by TPM
- Provides TPM 1.2 integration supporting Microsoft Windows Vista Operating System including Vista BitLocker

Compatibility

The HP ProtectTools Version 5.0 Client Security Software after market option CD (VR893AA) is compatible with the HP Compaq 6000 Pro Microtower, HP Compaq 6000 Pro Small Form Factor, HP Compaq 6005 Pro Microtower Business PC, and HP Compaq 6005 Pro Small Form Factor Business Desktop PCs.

Service and Support

Your Option Limited Warranty is a one (1) year (HP Option Limited Warranty Period) parts replacement warranty on any HP-branded or Compaq-branded options (HP Options). If your HP Option is installed in an HP Hardware Product, HP may provide warranty service either for the HP Option Limited Warranty Period or the remaining Limited Warranty Period of the HP Hardware Product in which the HP Option is being installed, whichever period is the longer but not to exceed three (3) years from the date you purchased the HP Option.

Software Technical Support (90 Days)

HP provides software technical support for HP Software, HP pre-installed third-party software and third-party software purchased from HP and is available through electronic media and telephone, for 90 days from date of purchase.

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