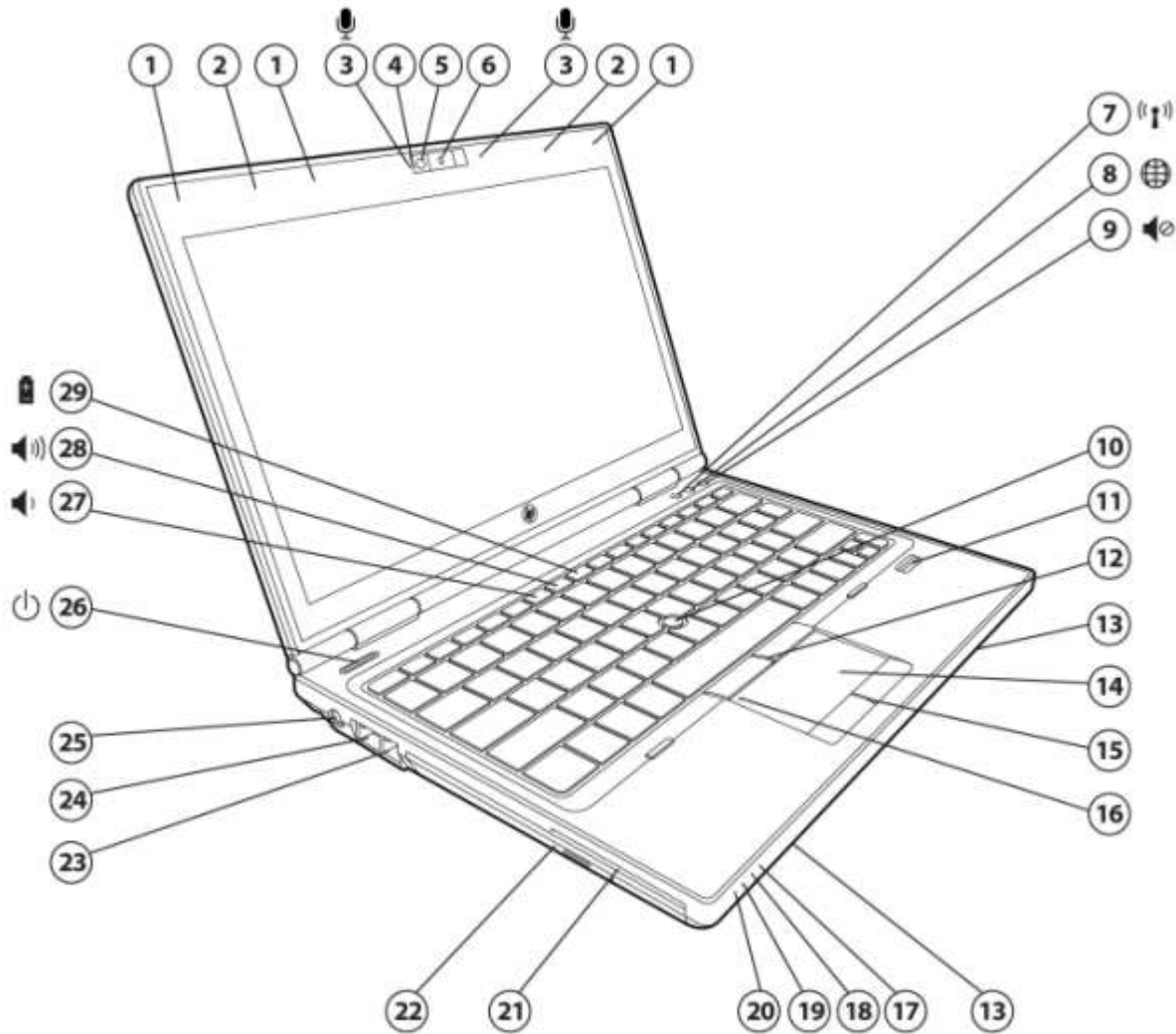


Overview

HP EliteBook 2570p Notebook PC

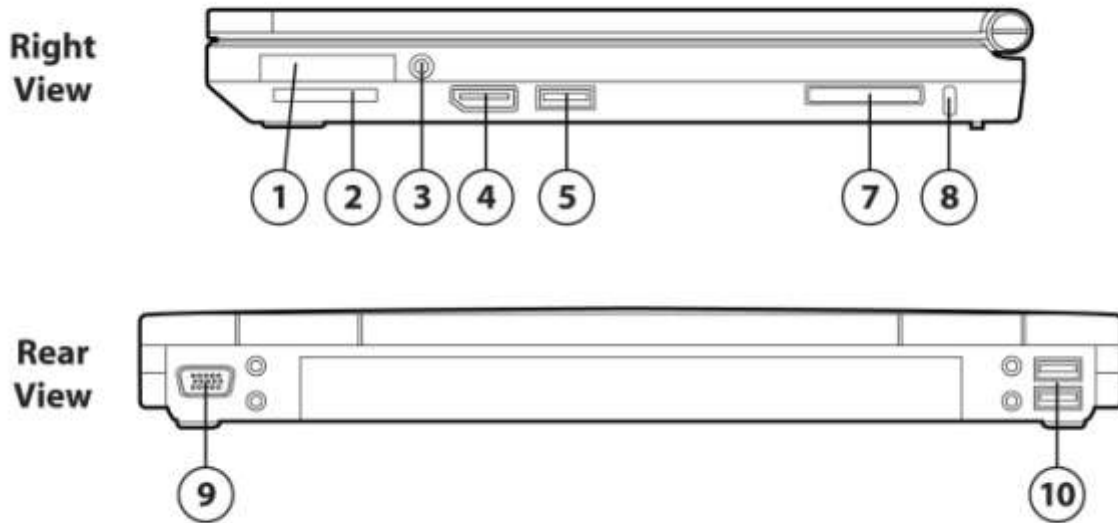


- | | |
|--|---|
| 1. WLAN antennas (3) | 16. Touchpad on/off button with LED indicator |
| 2. WWAN antennas (2) | 17. Drive activity / HP 3D DriveGuard LED indicator |
| 3. Dual-microphone array | 18. Battery charging LED indicator |
| 4. Webcam LED indicator | 19. Power/standby LED indicator |
| 5. Optional 720p HD Webcam | 20. Wireless on/off LED indicator |
| 6. HP Night Light button | 21. Integrated Smart Card Reader |
| 7. Wireless on/off button with LED indicator | 22. Optical drive or weight saver |
| 8. HP QuickWeb button with LED indicator | 23. Optional RJ-11/modem port |
| 9. Volume mute button with LED indicator | 24. RJ-45/Ethernet port |
| 10. Pointstick | 25. Power connector |
| 11. Optional HP Fingerprint Sensor | 26. Power button with LED indicator |
| 12. Pointstick buttons (2) | 27. Volume down function key |
| 13. Stereo Speakers | 28. Volume up function key |
| 14. Touchpad with scroll zone | 29. HP Power Assistant function key |



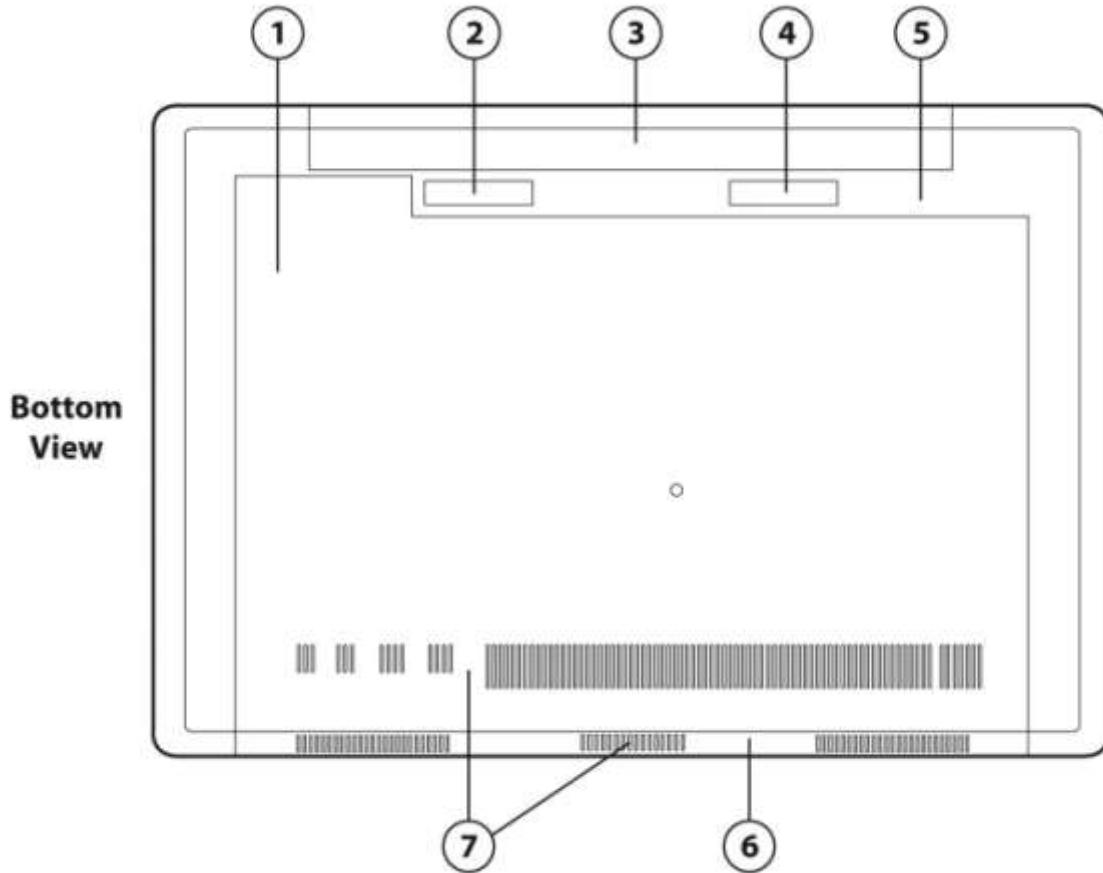
Overview

15. Touchpad buttons (2)



- | | |
|------------------------------------|---|
| 1. ExpressCard/34 slot | 6. Vent |
| 2. Secure Digital/MMC slot | 7. Docking connector |
| 3. Combo headphone/microphone jack | 8. Security Lock slot |
| 4. DisplayPort | 9. VGA connector (external monitor/projector) |
| 5. eSATA/USB 2.0 combo port | 10. (2) USB 2.0 ports |

Overview



- | | |
|--|---|
| 1. Service cover | 5. SIM slot for WWAN (select models) inside battery bay |
| 2. Security screw slot / Service cover release | 6. Bluetooth module compartment |
| 3. Battery bay | 7. Vents |
| 4. Battery release latch | |

Overview

AT A GLANCE

- Genuine Windows 7 versions or FreeDOS
- 12.5-inch diagonal LED-backlit HD display
- Industrial, business rugged HP DuraCase construction features a full magnesium alloy chassis, wear-resistant HP DuraFinish, precision aluminum-alloy hinges, and cast titanium-alloy display latches; designed to meet the military standard Mil-Std-810G for vibration, dust, altitude, and high temperature operation*
- Spill-resistant keyboard with drains
- Choice of an Intel® Core™ i7 or Core i5 standard voltage processor for maximum performance
- Intel vPro technology (optional) enables you to remotely monitor, diagnose, and repair PCs over the network, even if a system's OS is inoperable or it is powered off
- Optional fixed optical drive or weight saver
- Choice of 7200 rpm 2.5-inch hard drive up to 500 GB, with HP 3D DriveGuard protection; 7200 rpm Self-encrypting drive (SED) up to 500 GB, or 128/180 GB Solid State Drive (SSD) (180 GB SSD available starting June 25, 2012) or 256 GB SED SSD
- Flexible wireless connectivity options:
 - Optional integrated wireless mobile broadband module support
 - Integrated Intel Centrino® 802.11 a/b/g/n 2x2, 802.11 a/b/g/n 2x2 or b/g/n 1x1 wireless LAN module
 - Bluetooth® v4.0+EDR
- Choice of 9-cell or 6-cell battery, including HP Long Life battery, to customize weight, run-time, and battery life to your needs
- HP Power Assistant to conserve power, increase battery run-time, monitor power needs, and report workforce power consumption
- Integrated Intel HD Graphics 4000
- SRS Premium Sound PRO optimized for high fidelity audio
- Security features including HP ProtectTools, with central management across HP and non-HP client PCs
- Separate launch buttons for easy access to the following features: wireless on/off, HP QuickWeb, and volume mute
- DisplayPort for high resolution support
- Optional HP 2570 Series Docking Station provides additional DisplayPort, eSATA port, four additional USB ports (one charging), audio in/out ports, RJ-45, VGA, power connector, and HP Docking Station Cable Lock
- Optional 720p HD Webcam
- Dual pointing devices (touchpad with scroll zone and pointstick)
- HP Night Light
- ExpressCard/34 slot
- Secure Digital/MMC slot
- BFR/PVC-free**, ENERGY STAR qualified and EPEAT Gold Target registered in the U.S. EPEAT status varies by country- please see epeat.net.

* Testing was not intended to demonstrate fitness for DOD contracts requirements or for military use. Test results are not a guarantee of future performance under these test conditions.

** Meeting the industry definition of 'BFR/PVC-free' per the iNEMI Position Statement on "Low Halogen" Electronics. Plastic parts incorporated into the chassis generally contain < 1000 ppm (0.1%) of bromine or chlorine. Printed circuit board and substrate laminates generally contain < 1500 ppm (0.15%) of total bromine and chlorine. Service parts after purchase may not be BFR/PVC-free. External accessories, including power supplies, power cords, and peripherals as well as the following customer-configurable internal components: ATT SIM card are not BFR/PVC-free.



Features

OPERATING SYSTEM

Preinstalled	Genuine Windows® 7 Professional 32* Genuine Windows 7 Professional 64* Genuine Windows 7 Home Premium 64* FreeDOS
Supported	Genuine Windows 7 Enterprise 32* Genuine Windows 7 Enterprise 64* Genuine Windows 7 Ultimate 32* Genuine Windows 7 Ultimate 64* Genuine Windows 7 Home Basic 64* Genuine Windows XP Professional 32
Certified	Novell SUSE Linux Enterprise Desktop SUSE Linux Enterprise Desktop MS WHQL

* 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.

PROCESSOR

- 3rd Generation Intel® Core™ i7-3520M (2.9 GHz, 4 MB L3 cache, 2 cores)
Up to 3.60 GHz with Intel Turbo Boost Technology
- 3rd Generation Intel® Core™ i5-3360M (2.8 GHz, 3 MB L3 cache, 2 cores)
Up to 3.50 GHz with Intel Turbo Boost Technology
- 3rd Generation Intel® Core™ i5-3320M (2.6 GHz, 3 MB L3 cache, 2 cores)
Up to 3.30 GHz with Intel Turbo Boost Technology
- 3rd Generation Intel® Core™ i5-3210M (2.5 GHz, 3 MB L3 cache, 2 cores)
Up to 3.10 GHz with Intel Turbo Boost Technology

NOTE: Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.

CHIPSET

Mobile Intel QM77 Express (vPro support)

INTEL CORE I5 WITH vPRO/CORE I7 WITH vPRO TECHNOLOGY CAPABLE

Intel Core i5 with vPro and Core i7 with vPro technology is a selectable feature that is available on units configured with select processors, an Intel Centrino® Advanced-N or Ultimate-N WLAN module and a preinstalled Windows operating system. It provides advances in remote manageability, security, energy efficient performance, and wireless connectivity. Intel Active Management Technology 7.0 (iAMT) offers built-in manageability and proactive security for networked notebook PCs, even when they are powered off* or when the operating system is inoperable. It can help identify threats before they reach the network, isolate infected systems, and update PCs regardless of their power state.



Features

*Requires a Windows operating system, network hardware and software, connection with a power source, and a direct (non-VPN) corporate network connection which is either cable or wireless LAN.

NOTE: Some functionality of Intel Core i5 with vPro/Core i7 with vPro technology, such as Intel Active Management technology and Intel Virtualization technology, requires additional 3rd party software in order to run. Availability of future "virtual appliances" applications for Intel Core i5 with vPro/Core i7 with vPro technology is dependent on 3rd party software providers. Compatibility with future "virtual appliances" is yet to be determined.

GRAPHICS

Integrated:
Intel HD Graphics 4000

DISPLAY

Internal

12.5" diagonal LED-backlit HD 16:9 anti-glare (1366 x 768)
HP Privacy Filter support

External

Up to 32-bit per pixel color depth

DisplayPort

Supports resolutions up to 2560 x 1600, 30-bit color depth at 60 Hz, and full HD (1920 x 1080) monitors, 24-bit color depth at 120 Hz

VGA

Port supports resolutions up to 2048 x 1536 at 75 Hz, and lower resolutions at up to 100 Hz

NOTE: Resolutions are dependent upon monitor capability, and resolution and color depth settings.

STORAGE AND DRIVES

Primary Storage Bay

Hard Drives

320/500 GB 7200 rpm SMART SATA II
500 GB 7200 rpm SMART SATA II Self Encrypting Drive

HP 3D DriveGuard (Windows only)

The hard drive is mounted directly to the notebook frame, reducing the transmission of shock to the hard drive

Solid State Drive

SATA 6 Gb/s 128/180 GB Solid State
SATA 6 Gb/s 256 GB SED Solid State

NOTE: Up to 19 GB is reserved for the system recovery software.

OPTICAL DRIVES

Fixed 9.5 mm SATA optical drive



Features

DVD+/-RW SuperMulti DL Drive

DVD-ROM Drive

Weight saver

MEMORY

Standard

DDR3 PC3-12800 SDRAM (1600 MHz)

Two SODIMM slots supporting dual-channel memory

2 GB, 4 GB, and 8 GB SODIMMs

Maximum

Upgradeable to 16384 MB with optional 8192 MB SODIMMs in slots 1 and 2

Dual-channel

Maximized dual-channel performance requires SODIMMs of the same size and speed in both memory slots.

NOTE: Due to the non-industry standard nature of some third-party memory modules, we recommend HP branded memory to ensure compatibility. If you mix memory speeds, the system will perform at the lower memory speed. With Windows Starter 32-bit operating systems, the amount of usable memory is dependent upon your configuration, so that above 3 GB all memory may not be available due to system resource requirements.

NETWORKING/COMMUNICATIONS

Wireless

Support for a broad range of secure, integrated wireless LAN and wireless WAN options featuring support for the latest industry standards. Broadband Wireless (WWAN) requires a Windows operating system and is available in select countries as a standard, factory configurable feature only. Integrated Bluetooth is also available (factory configurable only) and can be combined with any of the supported wireless LAN and wireless WAN options.

Broadband Wireless (WWAN)

HP hs2350 HSPA+ Mobile Broadband Module

HP un2430 EV-DO/HSDPA Mobile Broadband Module (Gobi™ 3000)

HP lt2522 LTE/EV-DO Mobile Broadband Module (not available at product introduction) – U.S. only

HP lt2523 LTE/HSPA+ Mobile Broadband Module (not available at product introduction) – U.S./Canada only

Wireless LAN (WLAN)

Intel Centrino Advanced-N 6205 802.11a/b/g/n (2x2)

802.11 a/b/g/n WiFi Adapter (2x2)

802.11 b/g/n WiFi Adapter (1x1)

HP Integrated Module with Bluetooth 4.0+ EDR Wireless Technology

Communications

Integrated Intel 82579LM Gigabit* Network Connection (vPro configurations)

56K V.92 modem**

* The term "10/100/1000" or "Gigabit" Ethernet indicates compatibility with IEEE standard 802.3ab for Gigabit Ethernet, and does not connote actual operating speed of 1 Gb/s. For high-speed transmission, connection to a Gigabit



Features

Ethernet server and network infrastructure is required.

** Designed for downloads from 56K modem compliant sources. Maximum achievable download transmission rates currently do not reach 56 KB/s, and will vary with line conditions. Modem availability is subject to country regulatory approval.

AUDIO/MULTIMEDIA

Audio

SRS Premium Sound PRO™

Integrated stereo speakers

Integrated microphone (dual-microphone array when equipped with optional webcam)

Button for volume mute; function keys for volume up and down

Stereo headphone/line out

Stereo microphone/line in

Webcam

Optional 720p HD webcam

- HD format (widescreen)
- Supports videoconferencing and still image capture
- High quality fixed focus lens
- Video capture at various resolutions up to 1280x720 resolution (720p) and up to 30fps
- M-JPEG compression supports higher frame rates for video capture and videoconferencing
- Improved low light sensitivity
- Improved dynamic range

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

Keyboard

The HP spill-resistant keyboard is designed using a thin layer of Mylar film under the keyboard and a drain system that funnels fluid through a hole in the bottom of the notebook. This minimizes the risk of damage to sensitive components underneath. The 101/102-key compatible keyboard features an industry standard, full-pitch key layout with desktop keyboard features, such as the isolated inverted-T cursor control keys, editing keys, both left and right control and alt keys, and 12 function keys. U.S. and International key layouts are available. Other features include an integrated numeric keypad, hotkeys for instant access to power conservation, brightness, and other features, 19 mm x 19 mm key pitch (center-to-center spacing), 2.0 mm stroke, and comfort-dished keycaps.

HP Night Light shines directly on keyboard for low-light conditions

Pointing Devices

Touchpad with on/off button, two-way scroll, gestures, two pick buttons

Pointstick with two additional pointstick buttons

Buttons and Function Keys

Discrete buttons provide easy access to the following features: wireless on/off, Web browser, and volume mute.

Function keys provide control of the following features: standby mode, external display, volume down, volume up, HP



Features

Power Assistant, and display brightness.

SOFTWARE AND SECURITY

Preinstalled Software with Windows Operating System

Microsoft® Office Starter: reduced-functionality Word and Excel® only, with advertising. No PowerPoint® or Outlook®.

Buy Office 2010 to use the full-featured software.*

Skype

Adobe Flash

PDF Complete, Corporate Edition

WinZip Basic

Corel WinDVD

Roxio Secure Burn

Roxio MyDVD Business 2010

NOTE: HP Recovery Manager enables fast recovery of the factory preinstalled image if the system becomes corrupted or if important system files are accidentally deleted. Up to 19 GB of the hard drive is reserved for the system recovery software. Support in Windows Operating System only.

* Includes reduced functionality versions of Word and Excel. Purchase of Product Key required to activate full Office 2010 suite available at participating resellers/retailers and <http://www.office.com>

Security

Standard

HP ProtectTools

TPM Embedded Security Chip 1.2

Drive Encryption for HP ProtectTools

Smart Card Reader

Security lock slot

Optional

HP Fingerprint Sensor

HP Privacy Filter

HP Combo Lock

Microsoft® Security Essentials

NOTE: 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.

For more information on HP security solutions refer to: <http://www.hp.com/go/security>.

POWER

Power Supply

External 65W HP Smart AC Adapter



Features

Power cord included is 6-foot (1.8 meter).
Total length including external AC adapter is 12 feet (3.66 meter).

HP Fast Charge

Primary Battery

HP 9-cell Lithium-Ion Battery (100 WHr)

HP 6-cell Lithium-Ion Battery (62 WHr)

Secondary Battery

HP Long Life Battery (6-cell /55 WHr)

Battery Life

Battery life up to TBD hours*

System Standby Time

Up to 1 week

*Battery life will vary depending on the product model, configuration, loaded applications, features, use, wireless functionality and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See MobileMark07 battery benchmark <http://www.bapco.com/products/mobilemark2007> for additional details.

NOTE: Fast Charge recharges your battery up to 90% within 90 minutes when the system is off. Please note that 9-cell batteries do not support Fast Charge.

Power Conservation

Supports enhanced Intel SpeedStep technology (allows Battery Optimized Mode, Maximum Performance Mode, or Automatic mode)

Intel Display Power Saving technology

Hibernation

Standby

ACPI compliance

ENVIRONMENTAL

ENERGY STAR

IT ECO Declaration

EPEAT Gold where HP registers commercial notebook products. See <http://www.epeat.net> for registration status in your country.

NOTE: 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.

WEIGHTS & DIMENSIONS

Weight

Starting at 3.60 lb (1.63 kg) without optical drive

Dimensions (w x d x h)

12.02 x 8.23 x 1.08 in (at front) / 30.5 x 20.9 x 2.7 cm (at front)



Features

NOTE: Height varies depending upon where on the notebook the measurement is made. Weight varies by configuration and components. Weight includes 6-cell battery, hard drive, 1 GB memory, and no optical drive. Weight varies by configuration and components.

PORTS/SLOTS

Ports

VGA – One
DisplayPort – One (v1.1a)
Stereo headphone/microphone combo jack – One
Power Connector – One
Docking Connector – One
RJ-45 (Ethernet) – One
RJ-11 (Modem)– One
1394a – One
USB 3.0 – One
USB 2.0 – One charging port
eSATA/USB 2.0 combo port – One

Digital Media Slots

1 ExpressCard/34 slot, 1 Secure Digital slot (SD/MMC/SDHC/SDXC/MMC+)

SERVICE AND SUPPORT

Limited 3-year, 1-year and 90-day warranty options available, depending on country, 1-year limited warranty on primary battery; 3-year limited warranty on HP Long Life Battery (only available with 3-year platform warranty). On-site service and warranty upgrades are also available. HP Care Pack Services extend service contracts beyond the standard warranties. 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/services/carepack>.

NOTE: Certain restrictions and exclusions apply. Consult the HP Customer Support Center for details. <http://h20000.www2.hp.com/bizsupport/TechSupport/ProductRoot.jsp>



Technical Specifications

SYSTEM UNIT

Stand-Alone Power Requirements (AC Power)	Nominal Operating Voltage	18.5 V
	Average Operating Power	TBD W
	Max Operating Power	< 65 W
Temperature	Operating	32° to 95° F (0° to 35° C) (not writing optical) 41° to 95° F (5° to 35° C) (writing optical)
	Non-operating	-4° to 140° F (-20° to 60° C)
Relative Humidity	Operating	10% to 90%, non-condensing
	Non-operating	5% to 95%, 101.6° F (38.7° C) maximum wet bulb temperature
Shock	Operating	40 G, 2 ms, half-sine
	Non-operating	200 G, 2 ms, half-sine
Random Vibration	Operating	0.75 grms
	Non-operating	1.50 grms
Altitude (unpressurized)	Operating	-50 to 10,000 ft (-15.24 to 3,048 m)
	Non-operating	-50 to 40,000 ft (-15.24 to 12,192 m)
Planned Industry Standard Certifications	UL	Yes
	CSA	Yes
	FCC Compliance	Yes
	ENERGY STAR®	Select models*
	EPEAT	Registered Gold in United States**
	ICES	Yes
	Australia / NZ A-Tick Compliance	Yes
	CCC	Yes
	Japan VCCI Compliance	Yes
	KC	Yes
	BSMI	Yes
	CE Marking Compliance	Yes
	BNCI or BELUS	Yes
	CIT	Yes
	GOST	Yes
	Saudi Arabian Compliance (ICCP)	Yes
	SABS	Yes
	UKRSERTCOMPUTER	Yes

* Configurations of the HP EliteBook 2570p that are ENERGY STAR qualified are identified as HP 2570p ENERGY STAR on



Technical Specifications

HP websites and on www.energystar.gov.

** EPEAT registration varies by country. See www.epeat.net for registration status by country.

EPEAT status listed above applies to U.S.

For accessibility information on HP products, please visit: <http://www.hp.com/accessibility>.

DISPLAYS

12.5-inch LED-backlit HD anti-glare	Active Area (W x H)	10.63 x 6.4 in (27.7 x 15.6 cm)			
	Diagonal Size	12.5 in (31.75 cm)			
	Surface Treatment	Anti-glare			
	Contrast Ratio	400:1 (typical)			
	Refresh Rate	60 Hz			
	Brightness	200 nit (typical)			
	Pixel Resolution	Pitch	0.2025 mm		
		Format	1366 x 768		
		Configuration	RGB Stripe		
	Backlight	LED			
	PPI	125			
	Viewing Angle	±30° Horizontal,	±10° Vertical	(minimum)	SVA
		30/30/20/10	(Left/Right/Down/Up)	(minimum)	or
		45/45/35/25 (Left/Right/Down/Up) (typical)			

STORAGE AND DRIVES

Internal Storage				
500 GB 7200 rpm SATA Hard Drive	Drive Weight	0.25 lbs (115g)		
	Capacity	500 GB		
	Height	0.37 in (9.5 mm)		
	Width	2.75 in (70 mm)		
	Interface	ATA-8, SATA 2.6, 3.0 Gb/s, NCQ		
	Transfer Rate	Synchronous	300 MB/s (Drive Capability)	
		(maximum)		
	Seek Time	Single Track	1.5 ms	
	(typical reads, including settling)	Average	11 ms	
		Maximum	22 ms	
	Rotational Speed	7200 rpm		



Technical Specifications

500 GB 7200 rpm SMART SATA II Self Encrypting Drive	Logical Blocks	976,773,168		
	Operating Temperature	32° to 140° F (0° to 60° C) [case temp]		
	Features	ATA Security		
	Drive Weight	0.25 lbs (115g)		
	Capacity	500 GB		
	Height	0.37 in (9.5 mm)		
	Width	2.50 in (63.5 mm)		
	Interface	ATA-8, SATA 2.6, 3.0 Gb/s		
	Transfer Rate	Synchronous	300 MB/s (Drive Capability) (maximum)	
	Seek Time (typical reads, including settling)	Single Track	1 ms	
Average		12 ms		
Maximum		20 ms		
Rotational Speed	7200 rpm			
Logical Blocks	976,773,168			
Operating Temperature	32° to 140° F (0° to 60° C) [case temp]			
Features	ATA Security			
320 GB 7200 rpm SATA Hard Drive	Drive Weight	0.25 lbs (115 g)		
	Capacity	320 GB		
	Height	0.37 in (9.5 mm)		
	Width	2.75 in (70 mm)		
	Interface	ATA-8, SATA 2.6, 3.0 Gb/s, NCQ		
	Transfer Rate	Synchronous	300 MB/s (Drive Capability) (maximum)	
	Seek Time (typical reads, including settling)	Single Track	1.5 ms	
		Average	11 ms	
		Maximum	22 ms	
	Rotational Speed	7200 rpm		
Logical Blocks	625,142,448			



Technical Specifications

Operating Temperature	32° to 140° F (0° to 60° C) [case temp]
Features	ATA Security

256 GB 2.5-inch SATA SED Solid State Drive	Drive Weight	73 Grams (max)		
	Capacity	256 GB		
	Height	0.276 in (7 mm)		
	Width	2.76 in (70 mm)		
	Interface	SATA Gen 2		
	Performance	Maximum Sequential Read	Maximum Sequential Write	
		Up to 265 MB/s	Up to 220 MB/s	
	Logical Blocks	500,118,192		

Operating Temperature	32° to 158°F (0° to 70°C) [case temp]
Features	ATA Security; ATA-7 compliant; SATA 2.6; DIPM; TRIM

180 GB 2.5-inch SATA Solid State Drive	Drive Weight	78 Grams		
	Capacity	180 GB		
	Height	0.276 in (7 mm)		
	Width	2.76 in (70 mm)		
	Interface	SATA Gen 2		
	Performance	Maximum Sequential Read	Maximum Sequential Write	
		250 MB/s	100 MB/s	
	Logical Blocks	312,581,808		

Operating Temperature	32° to 158°F (0° to 70°C) [case temp]
Features	ATA Security; ATA-7; SATA 2.6; DIPM; TRIM

128 GB 2.5-inch SATA Solid State Drive	Drive Weight	75 Grams		
	Capacity	128 GB		
	Height	0.276 in (7 mm)		
	Width	2.76 in (70 mm)		
	Interface	SATA Gen 2		
	Performance	Maximum Sequential Read	Maximum Sequential Write	
		250 MB/s	140 MB/s	
	Logical Blocks	250,069,680		

Operating	32° to 158°F (0° to 70°C) [case temp]
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Technical Specifications

Temperature

Features

ATA Security; ATA-7; SATA 2.6; DIPM; TRIM

Optical Drives

DVD-ROM Drive

Access Times

Random

< 140 ms CD (typical)

< 160 ms DVD (typical)

Max Data Transfer Rate

24X CD-ROM

8X-DVD

Transfer Mode

UDMA Mode 5

Interface

Gen 1 SATA

Supported Media (read)

CD-DA, CD-TEXT, CD-ROM, CD-ROM XA, MIXED MODE CD, CD-I, CD-I Bridge (Photo-CD, Video CD), Multisession CD (Photo-CD, CD-EXTRA, Portfolio, CD-R, CD-RW), CD-R, CD-RW, DVD-ROM (DVD-5, DVD-9, DVD-10, DVD-18), DVD-R, DVD-RW, DVD+R, DVD+RW, DVD-RAM

Supported Media (write)

None

Max Media Capacity (read)

8.5GB

Transport

Tray Loading

DVD+/-RW

SuperMulti DL Drive

Access Times

Random

<140ms CD (typical)

< 160 ms DVD (typical)

Max Data Transfer Rate

24X CD-ROM

8X DVD

24X CD-R

24X CD-RW

8X DVD+R

8X DVD+RW

8X DVD-R

6X DVD-RW

6X - DVD+R Dual Layer

6X - DVD-R Dual Layer

5X DVD-RAM



Technical Specifications

Transfer Mode	UDMA Mode 5
Interface	Gen 1 SATA
Supported Media (read)	CD-DA, CD-TEXT, CD-ROM, CD-ROM XA, MIXED MODE CD, CD-I, CD-I Bridge (Photo-CD, Video CD), Multisession CD (Photo-CD, CD-EXTRA, Portfolio, CD-R, CD-RW), CD-R, CD-RW, DVD-ROM (DVD-5, DVD-9, DVD-10, DVD-18), DVD-R, DVD-RW, DVD+R, DVD+RW, DVD-RAM
Supported Media (write)	CD-R, CD-RW, DVD+R, DVD+RW, DVD-R, DVD-RW, DVD-RAM, DVD+R DL, DVD-R DL
Max Media Capacity (read)	8.5 GB
Max Media Capacity (write)	8.5 GB
Transport	Tray Loading

SECURITY

HP Fingerprint Sensor (optional)

Mobile Voltage Operation	3.0V-3.6V Single Supply
Operating Temperature	32° – 158°F (0° – 70°C)
Current Consumption @ 3.3V	Less than 70 mA peak imaging and scrolling Less than 25 mA hardware finger detection Advanced Power Management
High-Rate Image Capture	Up to 240 image frames /sec
ESD Resistance	IEC 61000-4-2 Level 4 (±15KV)
Detection Matrix	192 x 16 Pixels 9.7 mm x 0.81 mm 500 ppi High-Resolution Images

NETWORKING/COMMUNICATIONS

Intel® 82579LM Gigabit Network Connection

Ethernet Features	10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14) 100 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14)
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Technical Specifications

	<p>100 Mbit/s operation (100BASE-TX; IEEE 802.3u; IEEE 802.3 clauses 21-30)</p> <p>1000 Mbit/s operation (1000BASE-T; IEEE 802.3ab; IEEE 802.3 Clauses 40)</p> <p>Auto-Negotiation (Automatic Speed Selection)</p> <p>Full Duplex Operation at all Speeds, Half Duplex operation at 10 and 100 Mbit/s</p> <p>IEEE 802.1p QoS (Quality of Service) Support</p> <p>IEEE 802.1q VLAN support</p> <p>IEEE 802.3x Flow Control (IEEE 802.3 clauses 31-32; configurable)</p> <p>IEEE 802.3az EEE(Energy Efficient Ethernet)</p> <p>Jumbo Frame 9K</p> <p>Auto MDI/MDIX Crossover cable detection</p>
Power Management	<p>ACPI compliant - multiple power modes</p> <p>Energy Detect Low Power Mode(Green Ethernet)</p>
Performance Features	<p>TCP/IP/UDP Checksum Offload (configurable)</p> <p>Protocol Offload(ARP & NS)</p> <p>Large send offload and Giant send offload</p> <p>Receiving Side Scaling</p> <p>MACSec Offload (802.3ae)</p> <p>Intel vPro</p> <p>iSCSI Boot</p>
Manageability	<p>Wake-on-LAN from standby and hibernation (Magic Packet and Microsoft Wake-Up Frame); Wake-on-LAN from off (Magic Packet only)</p> <p>PXE 2.1 Remote Boot</p> <p>Statistics Gathering (SNMP MIB II, Ethernet-like MIB, Ethernet MIB (802.3x, clause 30))</p> <p>Comprehensive diagnostic and configuration software suite</p> <p>Virtual Cable Doctor for Ethernet cable status</p>
Interface	<p>PCI Express 1.1 x1 to fully support ASPM L0s/L1 and CLKREQ.</p> <p>NOTE: Intel 82579 PCIe interface is not PCIe compliant. It operates at half of PCIe specification V1.1 (2.5GT/S) speed.</p>
NIC Device Driver Name	<p>Intel 82579LM/82579V Ethernet Network Connection</p>
V.92 56K Data/Fax Modem	
Form Factor	<p>MDC 1.5 Daughtercard</p>
Power Management	<p>APM Revision 1.2, ACPI</p>



Technical Specifications

Support

Approvals/ Certifications

UL, CSA, NEMKO, CCIB, Industry Canada, FCC Part 68, CTR21, FCC Part 15 Class B, Canadian ICES-003 Class B, C.I.S.P.R.22, Australian ACA, CE Mark, Other Countries

Data Mode Capabilities

V.92 data

V.8bis

V.80

V44, V.42bis, MNP5 (Compression)

V.42 (LAPM, MNP2-4) (Error Correction)

Optional symbol rates:

2800, 3429

Asymmetric Symbol rates

Synchronous primary channel data signaling rates:

3600, 31200

Automatic rate re-negotiation

V.34

V.32bis

V.32

V.23

V.22bis

V.22

V.21

Bell 212A

Bell 103J

Fax Mode Capabilities

TIA/EIA-578-B (Class 1)

T.30, T.4 (Group 3)

V.17

V.29

V.27ter

V.21 Channel 2

T.31

Command Set

V.250 (Partial)

TIA-602

Identification: +GMI, +GMM, +GMR

Port control: +IPR, +ICF, +IFC, +ILRR

Modulation: +MS, +MR, +MA

Error control: +ES, +ER, +EB, +ESR, +ETBM



Technical Specifications

**HP un2430
EV-DO/HSDPA
Mobile Broadband
Module (Gobi™
3000)**

	Data compression: +DS, +DR V.251
Technology/Operating Bands	GSM/GPRS/EDGE: 850MHz(Cell), 900MHz(EGSM), 1800MHz(DCS), 1900MHz (PCS) UMTS/WCDMA with receive diversity: 2100MHz (UTRA FDD Band I), 1900MHz (UTRA FDD Band II), AWS (UTRA FDD Band IV), 900MHz(UTRA FDD Band VIII), 850MHz (UTRA FDD Band V) 1xEVDO/1xRTT with receive diversity: 850MHz (Band Class0-Cell), 1900MHz (Band Class1-PCS)
Wireless Protocol Standards	GSM/GPRS/EDGE: Class A, Multi-slot class 10 operation, coding schemes CS1 - CS4 and MSC1 - MSC9. UMTS/WCDMA: Release 99 and Release 6 CDMA: 1xEVDO Release 0 and Release A, IS-95A, IS-95B, IS-856, IS-2000
Wireless Parametric Standards	Meets or exceeds TIA/EIA IS-98-D
Maximum Data Rates	UMTS (HSPA) - 14.4 Mbps (Download), 5.76Mbps (Upload) CDMA (EVDO Release A) - 3.1 Mbps (Download), 1.8Mbps (Upload)
GPS	Standalone GPS enabled gpsOneXTRATM™
GPS Bands	L1 - 1575.42 MHz
Maximum Output Power	GSM/GPRS/EDGE: 32dBm (+/-1) WCDMA: 24dBm (+0.7/-2.3) CDMA: 24dBm (+0.7/-2)
Maximum Power Consumption	2750mA (peak); 1100mA (average)
Power Consumption, Idle Not Connected	20 mA
Power Management	USB selective suspend Integrated notebook wireless button
Antenna Type	Dual high efficiency 5 band antennae with spatial diversity, mounted in the display enclosure
Form Factor	PCI-Express MiniCard, USB 2.0 interface
Weight	11.5 g
Dimensions (Length x	2.01 x 1.18 x 0.18 in (51 x 30 x 5 mm)



Technical Specifications

Width x Thickness)

Voltage, Operating 3.3v +/- 10%

Temperature, Operating (from TIA/EIA/IS-98-D) -22° to 158° F (-30° to 70° C) (full RF performance)
-22° to 167° F (-30° to 75° C) (reduced RF performance)

Temperature, Non-operating, 96 hours (from MIL-STD 202 Method 108) -40° to 185° F (-40° to 85° C)

Humidity, Non-operating 95% relative humidity for 48 hours @ 185° F (85° C) (non-condensing)

Configuration Utilities HP Connection Manager

LED Activity LED Off - Radio Off;
Solid LED On - Radio On

HP hs2350 HSPA+ Mobile Broadband Module

Technology/Operating Bands GSM/GPRS/EDGE: 850MHz(Cell), 900MHz(EGSM), 1800MHz(DCS), 1900MHz (PCS)
UMTS/WCDMA with receive diversity: 2100MHz (UTRA FDD Band I), 1900Mhz (UTRA FDD Band II), 900Mhz(UTRA FDD Band VIII), 850 MHz (UTRA FDD Band V)

Wireless Protocol Standards GSM/GPRS/EDGE: Class B, Multi-slot class 10 operation, coding schemes CS1 – CS4 and MSC1 – MSC9.
UMTS/WCDMA: Release 99 and Release 7
Advanced Receiver Type 3i

Wireless Parametric Standards Complies with 3GPP specifications

Maximum Data Rates UMTS (HSPA) – 21 Mbps (Download), 5.76Mbps (Upload)

GPS Standalone, A-GPS (Internet- and Network assisted)

GPS Bands 1575.42 MHz (± 1.023 MHz)

Maximum Output Power GSM/EDGE

GSM850 & GSM900 bands

GPRS: +33 dBm ± 2 dBm (class 4)

EGPRS: +27 dBm ± 3 dBm (class E2)

DCS1800 & PCS1900 bands

GPRS: +30 dBm ± 2 dBm (class 1)

EGPRS: +26 dBm +4 / -3 dBm (class E2)



Technical Specifications

		UMTS
		UTRA FDD Bands +24 dBm +4 / -3 dBm (class 3)
Maximum Power Consumption		2000mA (peak); 600mA (average)
Power Consumption, Sleep Mode		5 mA
Power Management		USB selective suspend Integrated notebook wireless button
Antenna Type		Dual high efficiency 5 band antennae with spatial diversity, mounted in the display enclosure
Form Factor		PCI-Express MiniCard, USB 2.0 interface
Weight		< 12 g
Dimensions (Length x Width x Thickness)		2.01 x 1.18 x 0.18 in (51 x 30 x 5 mm)
Voltage, Operating Temperature, Operating Temperature, Non-operating, 96 hours (from MIL-STD 202 Method 108)		3.3v +/- 9% 14° to 149° F (-10° to 65° C) (full RF performance) 14° to 167° F (-10° to 75° C) (reduced RF performance) -22° to 185° F (-30° to 85° C)
Humidity, Non-operating		85% relative humidity for 48 hours @ 185° F (85° C) (non-condensing)
Configuration Utilities		HP Connection Manager
LED Activity		LED Off – Radio Off; Solid LED On – Radio On
HP It2522 LTE/EV-DO Mobile Broadband Module	Technology/Operating Bands	CDMA/1xRTT/EvDO: 800MHz (Cell), 1900MHz (PCS) GSM/GPRS/EDGE: 850MHz (Cell), 900MHz (EGSM), 1800MHz (DCS), 1900MHz (PCS) UMTS/WCDMA with receive diversity: 2100MHz (UTRA FDD Band I), 1900MHz (UTRA FDD Band II), 900MHz (UTRA FDD Band VIII), 850 MHz (UTRA FDD Band V) LTE: 700 MHz (Verizon, Band XIII)
	Mobile Operator Wireless Protocol Standards	Verizon (US only) GSM/GPRS/EDGE: Class B, Multi-slot class 10 operation, coding schemes CS1 – CS4 and MSC1 – MSC9. CDMA: 1xEVDO Release 0 and Release A, IS-95A, IS-95B, IS-856, IS-2000 UMTS/WCDMA: Release 99 and Release 7



Technical Specifications

Wireless Parametric Standards	LTE: Power Class III as per 3GPP TS 36.101 Complies with 3GPP specifications Release 8 for LTE
Maximum Data Rates	EvDO (Revision A) – 3.1 Mbps (Download), 1.8 Mbps (Upload) WCDMA (DC-HSPA+) – 42Mbps (Download) LTE (Category 3) – 100 Mbps (Download), 50Mbps (Upload)
GPS	Standalone, Assisted, XTRA
GPS Bands	1575.42 MHz (± 1.023 MHz)
Maximum Output Power	GSM/GPRS/EDGE: 32dBm (+/-1) WCDMA: 24dBm (+0.7/-2.3) LTE: +23 dBm (+2.7 dBm/-1.7 dBm) 1xRTT/EvDO: +24 dBm (+0.5 dBm/-1.5 dBm)
Maximum Power Consumption	2700mA (peak)
Power Consumption, Sleep Mode	10 mA
Power Management	USB selective suspend Integrated notebook wireless button
Antenna Type	Dual high efficiency 6 band antennae with spatial diversity, mounted in the display enclosure
Form Factor	PCI-Express MiniCard, USB 2.0 interface
Weight	< 10 g
Dimensions (Length x Width x Thickness)	2.01 x 1.18 x 0.18 in (51 x 30 x 4.5 mm)
Voltage, Operating Temperature, Operating	3.3v +/- 9%
Temperature, Non-operating, 96 hours (from MIL-STD 202 Method 108)	-4° to 149° F (-20° to 65° C) -40° to 185° F (-40° to 85° C)
Humidity, Non-operating	85% relative humidity for 48 hours @ 185° F (85° C) (non-condensing)
LED Activity	LED Off – Radio Off; Solid LED On – Radio On
HP It2523 LTE/HSPA+ Mobile Broadband Module	
Technology/Operating Bands	GSM/GPRS/EDGE: 850MHz (Cell), 900MHz (EGSM), 1800MHz (DCS), 1900MHz (PCS) UMTS/WCDMA with receive diversity: 2100MHz (UTRA FDD Band I), 1900MHz (UTRA FDD Band II), 850 MHz (UTRA FDD Band V) LTE: AWS (Band IV) 700 MHz (AT&T, Band XVII)
Mobile Operator Wireless Protocol	AT&T (US only) LTE: Power Class III as per 3GPP TS 36.101



Technical Specifications

Standards	
Wireless Parametric Standards	Complies with 3GPP specifications Release 8 for LTE
Maximum Data Rates	WCDMA (DC-HSPA+) – 42Mbps (Download) LTE (Category 3) – 100 Mbps (Download), 50Mbps (Upload)
GPS	Standalone, Assisted, XTRA
GPS Bands	1575.42 MHz (± 1.023 MHz)
Maximum Output Power	GSM/GPRS/EDGE: 32dBm (+/-1) WCDMA: 24dBm (+0.7/-2.3) LTE: +23 dBm (+2.7 dBm/-1.7 dBm)
Maximum Power Consumption	2700mA (peak)
Power Consumption, Sleep Mode	10 mA
Power Management	USB selective suspend Integrated notebook wireless button
Antenna Type	Dual high efficiency 6 band antennae with spatial diversity, mounted in the display enclosure
Form Factor	PCI-Express MiniCard, USB 2.0 interface
Weight	< 10 g
Dimensions (Length x Width x Thickness)	2.01 x 1.18 x 0.18 in (51 x 30 x 4.5 mm)
Voltage, Operating	3.3v +/- 9%
Temperature, Operating	-4° to 149° F (-20° to 65° C)
Temperature, Non-operating, 96 hours (from MIL-STD 202 Method 108)	-40° to 185° F (-40° to 85° C)
Humidity, Non-operating	85% relative humidity for 48 hours @ 185° F (85° C) (non-condensing)
LED Activity	LED Off – Radio Off; Solid LED On – Radio On
Intel Centrino Advanced-N 6205 (2x2)	
Wireless LAN Standards	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n*
Interoperability	Wi-Fi certified Cisco Compatible Extensions Program compliant with Microsoft Windows Vista and XP (details at: http://www.hp.com/go/notebooks/WLAN)
Frequency Band	2.4 GHz and 5GHz
Antenna Structure	2 transmit; 2 receive (2x2)



Technical Specifications

Data Rates	802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11b: 1, 2, 5.5, 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n: 66 possible data rates, ranging from 6 Mbps to 300 Mbps, depending on the combination of Bandwidth, Modulation Coding Scheme, and Guard Interval used, as defined in IEEE 802.11n specification
Modulation	Direct Sequence Spread Spectrum DBPSK, DQPSK, CCK, OFDM, BPSK, QPSK, 16-QAM, 64-QAM
Security¹	Authentication: WPA and WPA2, 802.1x (EAP_TLS, TTLS, PEAP, LEAP, EAP-FAST) Authentication Protocols: PAP, CHAP, TLS, GTC, MS-CHAP, MS-CHAPv2 Encryption: 64 and 128-bit WEP, AES-CCMP, CKIP, TKIP Support for Cisco Security Features (proven compatibility with Cisco Aironet infrastructure products through the Cisco Compatible Extensions Program Version 4) with Microsoft Windows Vista and XP only.
Sub-channels	Multinational support with frequency bands and channels compliant to local regulations.
Media Access Protocol	CSMA/CA (Collision Avoidance) with ACK
Network Architecture Models	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)
Roaming	IEEE 802.11 compliant roaming between 2.4GHz band Access Points
Output Power (for CCK and OFDM) ²	17 dBm max
Power Consumption	Transmit: 2.3 Watts (max, with two spatial streams) Receive: 1 Watt (max with two spatial streams) Idle mode ³ : 35 mW (average) Radio off: 20 mW (max)
Power Management	ACPI compliant power management 802.11 compliant power saving mode
Receiver Sensitivity⁴	54 Mbps: -76 dBm, 6 Mbps: -92 dBm
Antenna Connections	2 U.FL type connectors, 50 ohm nominal impedance
Form Factor	PCI-Express Half-MiniCard
Weight	0.0075 lb (3.4 g)



Technical Specifications

Dimensions	0.12 x 1.06 x 1.18 in (3.1 x 26.8 x 30.0 mm)	
Operating Voltage	3.3V +/- 9%	
Temperature	Operating	32° to 176° F (0° to 80° C)
	Non-operating	-40° to 176° F (-40° to 80° C)
Humidity	Operating	10% to 90% (non-condensing)
	Non-operating	5% to 90% (non-condensing)
Altitude	Operating	0 to 10,000 ft (3,048 m)
	Non-operating	0 to 50,000 ft (15,240 m)
LED Activity	LED Off - Radio OFF; Solid LED On - Radio ON	
	<ol style="list-style-type: none"> 1. Check latest software/driver release for updates on supported security features. 2. Maximum output power may vary by country according to local regulations. 3. In Power Save Polling mode and on battery power. 4. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CCK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation). 5. WLAN supplier's client utility is required for Cisco Compatible Extensions support with Microsoft Windows XP. WLAN may also be compatible with certain third-party software supplicants. WLAN supplier IHV extensions required for Cisco Compatible Extensions support for Microsoft Windows Vista. 	
802.11a/b/g/n WiFi Adapter (2x2)	Wireless LAN Standards	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n
	Interoperability	Wi-Fi certified (802.11abg only) Cisco Compatible Extensions Program compliant (802.11abg only) with Microsoft Windows Vista and XP (details at: http://www.hp.com/go/notebooks/WLAN)
	Frequency Band	2.4 GHz and 5 GHz
	Data Rates	802.11b: 1, 2, 5.5, 11 Mbps 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n: 6, 6.5, 9, 12, 13, 13.5, 18, 19.5, 24, 26, 27, 36, 39, 40.5, 48, 52, 54, 58.5, 65, 78, 81, 104, 108, 117, 121.5, 130, 135, 162, 216, 243, 270, 300 Mbps
	Frequency Support	20 MHz: 2.4 GHz and 5 GHz bands 40 MHz: 2.4 GHz and 5 GHz bands
	Modulation	Direct Sequence Spread Spectrum DBPSK, DQPSK, CCK, OFDM, BPSK, QPSK, 16-QAM, 64-QAM
	Security¹	Supports 64- and 128-bit WEP, WPA, WPA2, hardware-accelerated AES, 802.1x authentication types EAP-TLS, EAP-TTLS, PEAP-GTC, PEAP-MSCHAPv2, LEAP, EAP-FAST. Support for Cisco Security Features (proven compatibility with Cisco



Technical Specifications

	Aironet infrastructure products through the Cisco Compatible Extensions Program Version 4) with Microsoft Windows Vista and XP only.	
Sub-channels	Multinational support with frequency bands and channels compliant to local regulations.	
Media Access Protocol	CSMA/CA (Collision Avoidance) with ACK	
Network Architecture Models	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)	
Roaming	IEEE 802.11 compliant roaming between access points	
Output Power (for CCK) ²	17 dBm , nominal	
Output Power (for OFDM; power varies by data rate) ²	15 dBm , nominal	
Power Consumption	Idle associated: 250 mW Idle unassociated: 150 mW Transmit/Receive 20 MHz channel: 2.0 W (max) Transmit/Receive 40 MHz channel: 2.0 W (max)	
Power Management	ACPI compliant power management 802.11 compliant power saving mode	
Receiver Sensitivity ³	270 Mbps: -61dBm, , 54 Mbps: -72 dBm, 11 Mbps: -85 dBm , 1 Mbps: -92 dBm	
Antenna type	High efficiency dual band antenna with spatial diversity, mounted in the display enclosure	
Form Factor	PCI-Express Half-MiniCard	
Weight	0.013 lb (6 g)	
Dimensions	0.19 x 1.06 x 1.18 in (4.75 x 26.8 x 30 mm)	
Operating Voltage	3.3v +/- 10%	
Temperature	Operating	14° to 149° F (-10° to 65° C)
	Non-operating	-40° to 176° F (-40° to 80° C)
Humidity	Operating	10% to 90% (non-condensing)
	Non-operating	5% to 95% (non-condensing)
Altitude	Operating	0 to 10,000 ft (3,048 m)
	Non-operating	0 to 50,000 ft (15,240 m)
LED Activity	LED Off - Radio OFF; Solid LED On - Radio ON	

1. Check latest software/driver release for updates on supported security features.
2. Maximum output power may vary by country according to local regulations.
3. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CCK)



Technical Specifications

- modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).
- WLAN supplier's client utility is required for Cisco Compatible Extensions support with Microsoft Windows XP. WLAN may also be compatible with certain third-party software supplicants. WLAN supplier IHV extensions required for Cisco Compatible Extensions support for Microsoft Windows Vista.

802.11 b/g/n WiFi Adapter (1x1)	Wireless LAN Standards	IEEE 802.11b IEEE 802.11g IEEE 802.11n
	Interoperability	Wi-Fi certified Cisco Compatible Extensions Program compliant with Microsoft Win7, Vista and XP (details at: http://www.hp.com/go/notebooks/WLAN)
	Frequency Band	2.4 GHz
	Data Rates	802.11b: 1, 2, 5.5, 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n: 6.5, 7.2, 13, 14.4, 19.5, 21.7, 26, 28.9, 39, 43.3, 52, 57.8, 58.5, 65, 72.2Mbps
	Frequency Support Modulation	20 MHz: 2.4 GHz bands Direct Sequence Spread Spectrum DBPSK, DQPSK, CCK, OFDM, BPSK, QPSK, 16-QAM, 64-QAM
	Security¹	Supports 64- and 128-bit WEP, WPA, WPA2, hardware-accelerated AES, 802.1x authentication types EAP-TLS, EAP-TTLS, PEAP-GTC, PEAP-MSCHAPv2, LEAP, EAP-FAST. Support for Cisco Security Features (proven compatibility with Cisco Aironet infrastructure products through the Cisco Compatible Extensions Program Version 4) with Microsoft Windows Vista and XP only.
	Sub-channels	Multinational support with frequency bands and channels compliant to local regulations.
	Media Access Protocol	CSMA/CA (Collision Avoidance) with ACK
	Network Architecture Models	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)
	Roaming	IEEE 802.11 compliant roaming between access points
	Output Power (for CCK) ²	17 dBm , nominal
	Output Power (for OFDM; power varies by data rate) ²	15 dBm , nominal
	Power Consumption	Idle associated: 250 mW avg (CLKREQ enabled) Idle unassociated: 425 mW avg



Technical Specifications

	Transmit/Receive 20 MHz channel: 5.5 W (max)
Power Management	ACPI compliant power management 802.11 compliant power saving mode
Receiver Sensitivity³	150 Mbps: -71dBm
Antenna type	High efficiency dual band antenna with spatial diversity, usually mounted in the display enclosure
Form Factor	PCI-Express Half-MiniCard
Weight	0.013 lb (6 g)
Dimensions	0.19 x 1.06 x 1.18 in (4.75 x 26.8 x 30 mm)
Operating Voltage	3.3v +/- 10%
Temperature	Operating 14° to 149° F (-10° to 65° C) Non-operating -40° to 176° F (-40° to 80° C)
Humidity	Operating 10% to 90% (non-condensing) Non-operating 5% to 95% (non-condensing)
Altitude	Operating 0 to 10,000 ft (3,048 m) Non-operating 0 to 50,000 ft (15,240 m)
LED Activity	LED Off - Radio OFF; Solid LED On - Radio ON
	<ol style="list-style-type: none"> 1. Check latest software/driver release for updates on supported security features. 2. Maximum output power may vary by country according to local regulations. 3. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CCK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation). 4. WLAN supplier's client utility is required for Cisco Compatible Extensions support with Microsoft Windows XP. WLAN may also be compatible with certain third-party software supplicants. WLAN supplier IHV extensions required for Cisco Compatible Extensions support for Microsoft Windows Vista and Win7.
HP Integrated Module with Bluetooth 4.0+EDR Wireless Technology	
Bluetooth Specification	2.1+EDR Compliant
Dimensions	1.18 x 0.26 x 0.13 in (30 x 6.5 x 3.25 mm)
Frequency Band	2402 to 2480 MHz
Number of Available Channels	79 (1 MHz) available channels
Data Rates and Throughput	3 Mbps data rate; throughput up to 2.17 Mbps Synchronous Connection Oriented links up to 3, 64 kbps, voice channels Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric or 1306.9 kbps symmetric
Transmit Power	-6 dBm to 4 dBm (Bluetooth Class II)
Receiver Sensitivity	Better than -80 dBm at 0.1 % raw bit error rate
Power Consumption	Peak (Tx) 264 mW



Technical Specifications

	Peak (Rx) 231 mW
	Sleep <1 mW
Antenna	Internally integrated within module
Range	Up 33 ft (10 m)
Electrical Interface	USB 2.0 compliant
	Microsoft Windows Plug and Play compliant
Bluetooth Software Supported	Broadcom Bluetooth for Windows
	Microsoft Windows Bluetooth Software
Link Topology	Point to Point, Multipoint Pico Nets up to 7 slaves
Security	Full support of Bluetooth Security Provisions
Power Management	Microsoft Windows ACPI, and USB Bus Support
	Self configurable to optimize power conservation in all operating modes, including Standby, Hold, Park, and Sniff
Certifications	All necessary regulatory approvals for supported countries, including: FCC (47 CFR) Part 15C, Section 15.247 & 15.249 ETS 300 328, ETS 300 826 Low Voltage Directive IEC950 UL, CSA, and CE Mark
Temperature	Operating -4° to 158° F (-20° to 70° C) Non-operating -40° to 176° F (-40° to 80° C)
Humidity	Operating 10% to 90% Non-operating 5% to 95%
Altitude	Operating 15,000 ft (4,572 m) Non-operating 40,000 ft (12,192 m)
Bluetooth Profiles Supported	Serial Port Profile (SPP) ¹ Service Discovery Application Profile (SDAP) Dial-Up Networking (DUN) ^{1,2} Generic Object Exchange Profile (GOEP) ^{1,2} Object Push Profile (OPP) ^{1,2} File Transfer Profile (FTP) Synchronization Profile (SYNC) Hard Copy Cable Replacement (HCRP) ^{1,2} Personal Area Networking Profile (PAN) ^{1,2} Human Interface Device Profile (HID) ^{1,2,3} FAX Profile (FAX) Basic Imaging Profile (BIP) ² Headset Profile (HSP)



Technical Specifications

Hands Free Profile (HFP)

Advanced Audio Distribution Profile (A2DP)

1. indicates the profile is supported by Microsoft Windows XP SP2
2. indicates the profile is part of Windows Vista

AUDIO/MULTIMEDIA

Audio **SRS Premium Sound PRO**

Hardware	Implementation	IDT 92HD87 High Definition CODEC
	Touch-Sensitive Volume Controls	Volume up, volume down, and mute
	Full Duplex	Yes
	Microphone In	Stereo
	Headphone/Line Out	Stereo
	Integrated Microphone	Yes, dual digital microphone array when equipped with optional webcam
	Audio Output Quality	Frequency Response
Signal to Noise Ratio		>85 dB
Total Harmonic Distortion		0.01%
Noise Floor		-110 dB
Play/Record Sampling Rate(s)		8 kHz – 48kHz
DAC		16, 20 or 24-bit
ADC		16 or 20-bit
Integrated Stereo Speakers	Power Rating	2 Watts
	Impedance	4 Ohms

POWER

HP 65W Smart AC Adapter	Dimensions	4.17 x 1.85 x 1.1 in (10.6 x 4.7 x 2.8 cm)		
	Weight	0.62 lb (280 g)		
	Input	Input	100 to 240 VAC	
		Input Efficiency	87% min at 115 VAC	
		Input frequency range	47 to 63 Hz	
		Input AC current	1.7 A at 90 VAC, 0.85 A at 180 VAC	
	Output	Output power	65W	
		DC output	18.5V	



Technical Specifications

	Hold-up time	5 msec at 115 VAC input	
	Output current limit	<11A, Over voltage protection- 29V max automatic shutdown	
Connector	3 pin/grounded, mates with interchangeable cords		
Environmental Design	Operating temperature	32° to 104° F (0° to 40° C)	
	Non-operating (storage) temperature	-4° to 149° F (-20° to 65° C)	
	Altitude	0 to 10,000 ft (0 to 3,048 m)	
	Humidity	20% to 80%	
	Storage Humidity	10% to 90%	
EMI and Safety Certifications	CE Mark - full compliance with LVD and EMC directives; Worldwide safety standards - IEC60950, EN60950, UL60950, Class 1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE; MTBF - over 200,000 hours at 25°C ambient condition.		
HP 9-cell (100 WHr) Lithium-Ion Primary battery	Dimensions (H x W x L)	0.8 x 2.4 x 8.1 in (2 x 6.6 x 20.5cm)	
	Weight (max)	1.1lb, (.488kg)	
	Cells/Type	Lithium-Ion	
	Energy	Voltage	11.25V
		Amp-hour capacity	8.85Ah
		Watt-hour capacity	100Wh
	Temperature	Operating (Charging)	32° to 113° F (0° to 45° C)
		Operating (Discharging)	14° to 122° F (-10° to 50° C)
		Non-operating	-4° to 122° F (-20° to 50° C)
	Battery Re-Charge Time	System in OFF or Standby Mode	3.5 to 5 hours
		System ON	4 to 7 hours
		Fuel Gauge LED	No
	Warranty	1 year	
Optional Travel Battery Available	Yes		

HP 6-cell (62 WHr) Lithium-Ion Primary	Dimensions (H x W x L)	0.8 x 2.0 x 8.3 in (2.0 x 5.1 x 21.1 cm)
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QuickSpecs

HP EliteBook 2570p Notebook PC Intel Embargo until June 3rd

Technical Specifications

battery	Weight (max)	0.72 lb (0.325 kg)	
	Cells/Type	6-cell Lithium-Ion	
	Energy	Watt-hour capacity	62Wh
	Temperature	Operating (Charging)	32° to 113° F (0° to 45° C)
		Operating (Discharging)	14° to 140° F (-10° to 60° C)
		Non-operating	-4° to 140° F (-20° to 60° C)
	Battery Re-Charge Time	System in OFF or Standby Mode	2.5 hours
	Warranty	1 year	
Optional Travel Battery Available	Yes		

Optional HP 6-cell (55 WHr) Long Life Battery

Dimensions (H x W x L)	0.8 x 1.8 x 8.0in (2.0 x 4.7 x 20.5cm)	
Weight (max)	.72lb, (.323kg)	
Cells/Type	Lithium-Ion	
	Energy	Voltage
Temperature	Amp-hour capacity	5.1Ah
	Watt-hour capacity	55Wh
	Operating (Charging)	32° to 113° F (0° to 45° C)
Battery Re-Charge Time	Operating (Discharging)	14° to 122° F (-10° to 50° C)
	Non-operating	-4° to 122° F (-20° to 50° C)
	System in OFF or Standby Mode	2.5 hours
Fuel Gauge LED	System ON	3 to 5 hours
	No	
Warranty	3 years	
Optional Travel Battery Available	Yes	

ENVIRONMENTAL TBD

Environmental Data

Eco-Label Certifications This product has received or is in the process of being certified



Technical Specifications

to the following approvals and may be labeled with one or more of these marks:

US ENERGY STAR

IT ECO declaration

EPEAT Gold where HP registers commercial notebook products. See <http://www.epeat.net> for registration status in your country.

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>

Environment website

<http://www.hp.com/environment>

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 and Accessories (sold separately and availability may vary by country)

Type	Description	Part #
Cases	HP Professional Slim Top Load Case	BP848AA
	HP Professional Series Backpack	BP849AA
Docking	HP 2570p Docking Station	A9B77AA
	HP Dual Hinge Notebook Stand	AW661AA
	HP Display and Notebook Stand	AW662AA
Input/Output – Mice	HP 2.4 GHz Wireless Optical Mobile Mouse	LX732AA
	HP Wireless Mobile Mouse	H2L63AA
	HP USB Essential Keyboard/Mouse	H2S75AA
Adapters	HP 90W Slim Adapter	BT796AA
	HP 90W Smart AC/Auto/Air Combo Adapter	AJ652AA
Storage - External Storage	HP Mobile USB DVDRW	A2U57AA
Batteries	HP SX06XL Long Life Notebook Battery	QK644AA
	HP SX09 Notebook Battery	QK645AA
Health and Education	HP 20-Notebook Managed Charging Cart	QL489AA
	HP 20-Notebook Charging Cart	QL488AA
	HP 30-Notebook Managed Charging Cart	QL490AA
	HP Pocket Whiteboard	AOX37AA
Security	HP Docking Station Cable Lock	AU656AA

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