HP Spectre 13 -af009tu Intel® Core™ i5 i5-8250U Laptop 33,8 cm (13.3") Touchscreen Full HD 8 GB LPDDR3-SDRAM 360 GB SSD Windows 10 Pro White

Brand : HP

Product family: Spectre

Product code: 2VQ45PA

Product name : 13-af009tu

Intel Core i5-8250U (6M Cache, up to 3.40 GHz), 8GB LPDDR3-SDRAM, 360GB SSD, 13.3" (1920 x 1080), Intel UHD Graphics 620, Bluetooth, Wi-Fi, Windows 10 Pro

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Thin. Powerful. Built for concrete jungles.

Experience what the laptop was always meant to be. By bringing powerful, all-day performance and a stunning FHD touchscreen to a seductively thin and exceptionally crafted metal and carbon fiber design, the Spectre laptop is almost too good to be true.
HP Spectre 13 -af009tu. Product type: Laptop, Form factor: Clamshell. Processor family: Intel® Core™ i5, Processor model: i5-8250U, Processor frequency: 1,6 GHz. Display diagonal: 33,8 cm (13.3"), HD type: Full HD, Display resolution: 1920 x 1080 pixels, Touchscreen. Internal memory: 8 GB, Internal memory type: LPDDR3-SDRAM. Total storage capacity: 360 GB, Storage media: SSD. Operating system installed: Windows 10 Pro. Product colour: White

Design

Product type *	Laptop
Product colour *	White
Form factor *	Clamshell
Country of origin	China

Display

Display diagonal *	33,8 cm (13.3")
Display resolution *	1920 x 1080 pixels
Touchscreen *	✔
HD type	Full HD
Touch technology	Multi-touch
Panel type	IPS
LED backlight	✔
Native aspect ratio	16:9
Dual-screen	✘

Processor

Processor manufacturer *	Intel
Processor family *	Intel® Core™ i5
Processor generation	8th gen Intel® Core™ i5
Processor model *	i5-8250U
Processor cores	4
Processor threads	8
Processor boost frequency	3,4 GHz
Processor frequency *	1,6 GHz
System bus rate	4 GT/s
Processor cache	6 MB
Processor cache type	Smart Cache
Processor socket	BGA 1356
Processor lithography	14 nm
Processor operating modes	64-bit
Processor codename	Kaby Lake R
Bus type	OPI
Stepping	Y0

Software

Operating system architecture	64-bit
Pre-installed software	Netflix
Operating system installed *	Windows 10 Pro
Bundled software	McAfee LiveSafe

Processor special features

Intel® My WiFi Technology (Intel® MWT)	✔
Intel® Smart Response Technology	✔
Intel® Identity Protection Technology (Intel® IPT)	✔
Intel® Hyper Threading Technology (Intel® HT Technology)	✔
Intel® Turbo Boost Technology	2.0
Enhanced Intel SpeedStep Technology	✔
Intel® Clear Video HD Technology (Intel® CVT HD)	✔
Intel Clear Video Technology	✔
Intel® InTru™ 3D Technology	✔
Intel® Quick Sync Video Technology	✔
Intel Flex Memory Access	✔
Intel® AES New Instructions (Intel® AES-NI)	✔
Intel Trusted Execution Technology	✘
Intel Enhanced Halt State	✔
Intel VT-x with Extended Page Tables (EPT)	✔
Intel® Secure Key	✔
Intel TSX-NI	✘
Intel Stable Image Platform Program (SIPP)	✘
Intel® OS Guard	✔
Intel Software Guard Extensions (Intel SGX)	✔

Processor

Thermal Design Power (TDP)	15 W
Configurable TDP-up frequency	1,8 GHz
Configurable TDP-up	25 W
Configurable TDP-down	10 W
Configurable TDP-down frequency	0,8 GHz
Tjunction	100 °C
Maximum number of PCI Express lanes	12
PCI Express slots version	3.0
PCI Express configurations	1x2+2x1, 1x4, 2x2, 4x1
ECC supported by processor	✘

Memory

Internal memory *	8 GB
Internal memory type	LPDDR3-SDRAM
Memory clock speed	2133 MHz
Memory form factor	On-board
Maximum internal memory *	8 GB

Storage

Total storage capacity *	360 GB
Storage media *	SSD
Total SSDs capacity	360 GB
Number of SSDs installed	1
Solid-state drive capacity	360 GB
Optical drive type *	✘

Graphics

Discrete graphics card model *	Not available
On-board graphics card *	✔
Discrete graphics card *	✘
On-board graphics card family	Intel® UHD Graphics
On-board graphics card model *	Intel® UHD Graphics 620
On-board graphics card base frequency	300 MHz
On-board graphics card dynamic frequency (max)	1100 MHz
Maximum on-board graphics card memory	32 GB
On-board graphics card DirectX version	12.0
On-board graphics card OpenGL version	4.4
On-board graphics card ID	0x5917

Audio

Number of built-in speakers	2
Speakers manufacturer	Bang & Olufsen

Camera

Front camera	✔

Network

Wi-Fi	✔
Wi-Fi standards	802.11a, Wi-Fi 5 (802.11ac), 802.11b, 802.11g, Wi-Fi 4 (802.11n)
Ethernet LAN	✘
Bluetooth	✔
Bluetooth version	4.2

Ports & interfaces

USB 3.2 Gen 1 (3.1 Gen 1) Type-C ports quantity *	1
Thunderbolt 3 ports quantity	2
Combo headphone/mic port	✔

Processor special features

Intel® Clear Video Technology for Mobile Internet Devices (Intel CVT for MID)	✔
Intel 64	✔
Execute Disable Bit	✔
Idle States	✔
Thermal Monitoring Technologies	✔
Processor package size	42 x 24 mm
Supported instruction sets	AVX 2.0, SSE4.1, SSE4.2
Processor code	SR3LA
CPU configuration (max)	1
Embedded options available	✘
Intel Virtualization Technology for Directed I/O (VT-d)	✔
Intel Identity Protection Technology version	1,00
Intel Smart Response Technology version	1,00
Intel Stable Image Platform Program (SIPP) version	0,00
Intel Secure Key Technology version	1,00
Intel TSX-NI version	0,00
Intel Virtualization Technology (VT-x)	✔
Processor ARK ID	124967
Conflict-Free processor	✔

Brand-specific features

HP JumpStart	✔
HP Sure Connect	✔
HP Cool Control	✔
HP Audio Boost	✔
HP Audio Switch	✔
HP ePrint	✔
HP Recovery Manager	✔
HP Support Assistant	✔
HP Documentation	✔
HP Imagepad	✔
HP front camera	HP Wide Vision HD IR

Battery

Battery technology	Lithium-Ion (Li-Ion)
Number of battery cells	4
Battery capacity *	43,7 Wh

Power

AC adapter power	65 W

Security

Trusted Platform Module (TPM)	✔

Sustainability

Sustainability certificates	EPEAT Silver, ENERGY STAR

Weight & dimensions

Width	308,2 mm
Depth	224,2 mm
Height	10,4 mm
Weight *	1,11 kg

Keyboard

Pointing device	Touchpad
Numeric keypad *	✗