



# HP Spectre 13 Pro Notebook 33.8 cm (13.3") Touchscreen Full HD 4th gen Intel® Core™ i5 4 GB DDR3-SDRAM 128 GB SSD Wi-Fi 5 (802.11ac) Windows 8.1 Pro Silver



**Brand :** HP

**Product family:** Spectre

**Product code:** F1N41EA#ABB

**Product name :** 13 Pro

Intel Core i5-4200U (1.6GHz, 3MB), 13.3" LED BrightView FHD UWVA touch (1920 x 1080), 4GB DDR3L SDRAM, 128GB M.2 SSD, Intel HD Graphics 4400, 802.11ac, Bluetooth 4.0, webcam, Windows 8.1 Pro 64  
HP Spectre 13 Pro. Product type: Notebook, Form factor: Clamshell. Processor family: 4th gen Intel® Core™ i5, Processor model: i5-4200U, Processor frequency: 1.6 GHz. Display diagonal: 33.8 cm (13.3"), Display resolution: 1920 x 1080 pixels, Touchscreen. Internal memory: 4 GB, Internal memory type: DDR3-SDRAM. Total storage capacity: 128 GB, Storage media: SSD. On-board graphics adapter model: Intel® HD Graphics 4400. Operating system installed: Windows 8.1 Pro. Product colour: Silver

Design		Ports & interfaces	
Product type *	Notebook	Total number of SATA connectors	4
Product colour *	Silver	Number of SATA III connectors	4
Form factor *	Clamshell	Keyboard	
Country of origin	China	Pointing device	Touchpad
Display		Numeric keypad *	✗
Display diagonal *	33.8 cm (13.3")	Software	
Display resolution *	1920 x 1080 pixels	Operating system architecture	64-bit
Touchscreen *	✓	Operating system installed *	Windows 8.1 Pro
HD type	Full HD	Processor special features	
LED backlight	✓	Intel® Wireless Display (Intel® WiDi)	✓
Native aspect ratio	16:9	Intel® My WiFi Technology (Intel® MWT)	✓
Processor		Intel Smart Connect Technology	✓
Processor manufacturer *	Intel	Intel® Anti-Theft Technology (Intel® AT)	✓
Processor model *	i5-4200U	Intel® Identity Protection Technology (Intel® IPT)	✓
Processor frequency *	1.6 GHz	Intel® Hyper Threading Technology (Intel® HT Technology)	✓
Processor boost frequency	2.6 GHz	Intel® Turbo Boost Technology	2.0
Processor family *	4th gen Intel® Core™ i5	Intel® Matrix Storage Technology (Intel® MST)	✗
Processor cores	2	Intel® High Definition Audio (Intel® HD Audio)	✓
Processor threads	4	Enhanced Intel SpeedStep Technology	✓
Processor cache	3 MB	Intel® Clear Video HD Technology (Intel® CVT HD)	✓
Processor cache type	Smart Cache	Intel Clear Video Technology	✗
Processor socket	BGA 1168	Intel® InTru™ 3D Technology	✓
Processor lithography	22 nm	Intel® Insider™	✓
Processor operating modes	64-bit		
Processor series	Intel Core i5-4200 Mobile series		
Processor codename	Haswell		
Bus type	DMI2		
FSB Parity	✗		
Stepping	C0		
Thermal Design Power (TDP)	15 W		
Tjunction	100 °C		

Processor		Processor special features	
Maximum number of PCI Express lanes	12	Intel® Quick Sync Video Technology	✓
PCI Express slots version	2.0	Intel Flex Memory Access	✗
PCI Express configurations	1x4,2x4	Intel® AES New Instructions (Intel® AES-NI)	✓
ECC supported by processor	✗	Intel Trusted Execution Technology	✗
Memory		Intel Enhanced Halt State	✓
Internal memory *	4 GB	Intel VT-x with Extended Page Tables (EPT)	✓
Internal memory type	DDR3-SDRAM	Intel Demand Based Switching	✗
Memory clock speed	1600 MHz	Intel® Secure Key	✓
Memory form factor	On-board	Intel TSX-NI	✗
Maximum internal memory *	8 GB	Intel® Clear Video Technology for Mobile Internet Devices (Intel CVT for MID)	✗
Storage		Intel 64	✓
Total storage capacity *	128 GB	Execute Disable Bit	✓
Storage media *	SSD	Idle States	✓
Total SSDs capacity	128 GB	Thermal Monitoring Technologies	✓
Number of SSDs installed	1	Processor package size	40 x 24 x 1.5 mm
SSD capacity	128 GB	Supported instruction sets	AVX 2.0
SSD interface	M.2	Processor code	SR170
Optical drive type *	✗	CPU configuration (max)	1
Card reader integrated	✓	Embedded options available	✗
Compatible memory cards	SD	Intel Virtualization Technology for Directed I/O (VT-d)	✗
Graphics		Intel Smart Connect Technology version	1.00
Discrete graphics adapter model *	Not available	Intel Identity Protection Technology version	1.00
On-board graphics adapter *	✓	Intel Secure Key Technology version	1.00
Discrete graphics adapter *	✗	Intel ME Firmware Version	9.5
On-board graphics adapter family	Intel® HD Graphics	Intel TSX-NI version	0.00
On-board graphics adapter model *	Intel® HD Graphics 4400	Intel Virtualization Technology (VT-x)	✓
On-board graphics adapter base frequency	200 MHz	Intel Dual Display Capable Technology	✗
On-board graphics adapter dynamic frequency (max)	1000 MHz	Intel FDI Technology	✗
Maximum on-board graphics adapter memory	1.74 GB	Intel Rapid Storage Technology	✓
On-board graphics adapter DirectX version	12	Intel Fast Memory Access	✗
On-board graphics adapter ID	0xA16	Processor ARK ID	75459
Audio		Conflict-Free processor	✓
Audio system	Beats Audio	Battery	
Built-in microphone	✓	Battery technology	Lithium-Ion (Li-Ion)
Camera		Number of battery cells	4
Front camera	✓	Battery capacity (Watt-hours) *	51 Wh
Network		Power	
Bluetooth	✓	AC adapter power	45 W
Wi-Fi	✓	Security	
Top Wi-Fi standard *	Wi-Fi 5 (802.11ac)	Cable lock slot	✓
Wi-Fi standards	Wi-Fi 5 (802.11ac)	Weight & dimensions	
Ethernet LAN	✓	Width	324 mm
Ethernet LAN data rates	10,100,1000 Mbit/s	Depth	220 mm
Bluetooth version	4.0	Height	14 mm
Ports & interfaces		Weight *	1.5 kg
USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity *	2	Other features	
Ethernet LAN (RJ-45) ports	1	LightScribe	✗
HDMI ports quantity *	1		
Mini DisplayPorts quantity	1		
DVI port	✗		
S/PDIF out port	✗		
Microphone in	✗		
Combo headphone/mic port	✓		

## Ports & interfaces

Docking connector	✘
Charging port type	DC-in jack
ExpressCard slot	✘
CardBus PCMCIA slot type	✘
SmartCard slot	✘

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