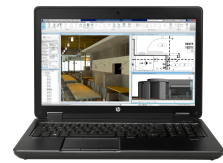




**HP ZBook 15 G2 Mobile workstation 39,6 cm (15.6") Full HD Intel® Core™ i5 i5-4340M 4 GB DDR3L-SDRAM 500 GB HDD NVIDIA® Quadro® K1100M Wi-Fi 5 (802.11ac) Windows 7 Professional Black**



**Brand :** HP

**Product family:** ZBook

**Product code:** K1M93AW

**Product name :** 15 G2

15.6", Intel Core i5-4340M 2.9 GHz, HD Graphics 4600, NVIDIA Quadro K1100M 2 GB GDDR5, 4 GB 1600 MHz DDR3L SDRAM, 500 GB 7200 rpm SATA, DVD+/-RW SuperMulti DL, 720p HD webcam  
 HP ZBook 15 G2. Product type: Mobile workstation, Form factor: Clamshell. Processor family: Intel® Core™ i5, Processor model: i5-4340M, Processor frequency: 2,9 GHz. Display diagonal: 39,6 cm (15.6"), HD type: Full HD, Display resolution: 1920 x 1080 pixels. Internal memory: 4 GB, Internal memory type: DDR3L-SDRAM. Total storage capacity: 500 GB, Storage media: HDD, Optical drive type: DVD Super Multi DL. Operating system installed: Windows 7 Professional. Product colour: Black



Design		Ports & interfaces	
Product type *	Mobile workstation	Charging port type	DC-in jack
Product colour *	Black	ExpressCard slot	✓
Form factor *	Clamshell	SmartCard slot	✓
Country of origin	China	USB Sleep-and-Charge	✓
<b>Display</b>		USB Sleep-and-Charge ports	1
Display diagonal *	39,6 cm (15.6")	<b>Performance</b>	
Display resolution *	1920 x 1080 pixels	GPS (satellite)	✗
HD type	Full HD	<b>Keyboard</b>	
Panel type	SVA	Numeric keypad *	✓
LED backlight	✓	Keyboard backlit	✓
Native aspect ratio	16:9	<b>Software</b>	
<b>Processor</b>		Operating system architecture	64-bit
Processor manufacturer *	Intel	Operating system installed *	Windows 7 Professional
Processor generation	4th gen Intel® Core™ i5	HP Mobile Workstations are shipped with a variety of software titles including: HP Performance Advisor, HP Remote Graphics Software, HP Client Security, HP Drive Encryption (FIPS 140-2), Microsoft Security Essentials, Microsoft Defender, CyberLink Power DVD BD, HP ePrint Driver, HP PageLift.	
Processor family *	Intel® Core™ i5	Bundled software	
Processor model *	i5-4340M	<b>Processor special features</b>	
Processor frequency *	2,9 GHz	Intel® Wireless Display (Intel® WiDi)	✓
Processor boost frequency	3,6 GHz	Intel® My WiFi Technology (Intel® MWT)	✗
Processor threads	4	Intel® Anti-Theft Technology (Intel® AT)	✓
System bus rate	5 GT/s	Intel® Identity Protection Technology (Intel® IPT)	✓
Processor cores	2	Intel® Hyper Threading Technology (Intel® HT Technology)	✓
Processor cache	3 MB	Intel® Turbo Boost Technology	2.0
Processor cache type	Smart Cache	Enhanced Intel SpeedStep Technology	✓
Processor lithography	22 nm		
Processor operating modes	64-bit		
Processor series	Intel Core i5-4300 Mobile series		
Processor codename	Haswell		
Bus type	DMI2		
FSB Parity	✗		
Motherboard chipset	Intel® QM87		
Thermal Design Power (TDP)	37 W		
Tjunction	100 °C		
Maximum number of PCI Express lanes	16		

Processor		Processor special features	
PCI Express slots version	3.0	Intel® Clear Video HD Technology (Intel® CVT HD)	✓
PCI Express configurations	1x16, 2x8, 1x8+2x4	Intel Clear Video Technology	✗
ECC supported by processor	✗	Intel® InTru™ 3D Technology	✓
Memory		Intel® Insider™	✓
Internal memory *	4 GB	Intel® Quick Sync Video Technology	✓
Internal memory type	DDR3L-SDRAM	Intel Flex Memory Access	✗
Memory clock speed	1600 MHz	Intel® AES New Instructions (Intel® AES-NI)	✓
Memory form factor	SO-DIMM	Intel Trusted Execution Technology	✓
Memory layout (slots x size)	1 x 4 GB	Intel Enhanced Halt State	✗
Memory slots	2x SO-DIMM	Intel VT-x with Extended Page Tables (EPT)	✓
Storage		Intel Demand Based Switching	✓
Total storage capacity *	500 GB	Intel® Secure Key	✓
Storage media *	HDD	Intel TSX-NI	✗
Total HDDs capacity	500 GB	Intel® Clear Video Technology for Mobile Internet Devices (Intel CVT for MID)	✗
Number of hard drives installed	1	Intel 64	✓
Hard drive capacity	500 GB	Execute Disable Bit	✓
Hard drive interface	SATA	Thermal Monitoring Technologies	✓
Hard drive speed	7200 RPM	Processor package size	37.5 x 37.5 x 4.7 mm
Optical drive type *	DVD Super Multi DL	Supported instruction sets	AVX 2.0
Card reader integrated	✓	CPU configuration (max)	1
Compatible memory cards	SDHC, SDXC	Embedded options available	✗
Graphics		Intel Virtualization Technology for Directed I/O (VT-d)	✓
Discrete graphics card model *	NVIDIA® Quadro® K1100M	Intel Identity Protection Technology version	1,00
On-board graphics card *	✓	Intel Secure Key Technology version	1,00
Discrete graphics card *	✓	Intel TSX-NI version	0,00
On-board graphics card family	Intel® HD Graphics	Intel Virtualization Technology (VT-x)	✓
On-board graphics card model *	Intel® HD Graphics 4600	Intel Dual Display Capable Technology	✗
On-board graphics card base frequency	400 MHz	Intel FDI Technology	✗
On-board graphics card dynamic frequency (max)	1250 MHz	Intel Rapid Storage Technology	✗
Maximum on-board graphics card memory	1,74 GB	Intel Fast Memory Access	✗
On-board graphics card DirectX version	11.1	Processor ARK ID	80344
On-board graphics card ID	0x416	Conflict-Free processor	✓
Discrete graphics card memory	2 GB	Battery	
Discrete graphics memory type	GDDR5	Battery technology	Lithium-Ion (Li-Ion)
Number of discrete graphics cards installed	1	Number of battery cells	8
Audio		Battery capacity *	83 Wh
Audio system	DTS Studio Sound HD audio	Power	
Number of built-in speakers	2	AC adapter power	150 W
Built-in microphone	✓	Security	
Camera		Cable lock slot	✓
Front camera	✓	Fingerprint reader	✓
Network		Trusted Platform Module (TPM)	✓
Wi-Fi	✓	Operational conditions	
Top Wi-Fi standard *	Wi-Fi 5 (802.11ac)	Operating temperature (T-T)	0 - 35 °C
Wi-Fi standards	802.11a, Wi-Fi 5 (802.11ac), 802.11b, 802.11g, Wi-Fi 4 (802.11n)	Operating relative humidity (H-H)	10 - 90%
Ethernet LAN	✓	Weight & dimensions	
Ethernet LAN data rates	1000 Mbit/s	Width	381,5 mm
Bluetooth	✓	Depth	257 mm
Bluetooth version	4.0	Height	30,5 mm
Ports & interfaces		Weight *	2,82 kg
USB 2.0 ports quantity *	1		
USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity *	3		

Ports & interfaces		Other features	
Ethernet LAN (RJ-45) ports	1	RJ-45 ports quantity	1
DisplayPorts quantity	1	Intel® Virtualization Technology (Intel® VT)	VT-d, VT-x
VGA (D-Sub) ports quantity	1		
Thunderbolt 2 ports quantity	1		
Headphone outputs	1		
Microphone in	✓		
Combo headphone/mic port	✓		
Docking connector	✓		