HP

HP ZBook 15 G4 Intel® Core™ i7 i7-7820HQ Mobil arbeidsstasjon 39,6 cm (15.6") Full HD 16 GB DDR4-SDRAM 512 GB SSD NVIDIA® Quadro® M2200 Wi-Fi 5 (802.11ac) Windows 10 Pro Sort

Merke : HP   **Product family:** ZBook   **Produktkode:** 1NC91PA

Produktnavn : 15 G4

HP ZBook 15 G4. Produkttype: Mobil arbeidsstasjon, Formfaktor: Clamshell. Prosessorfamilie: Intel® Core™ i7, Prosessormodell: i7-7820HQ, Prosessorfrekvens: 2,9 GHz. Skjermdiagonal: 39,6 cm (15.6"), HD-type: Full HD, Skjermoppløsning: 1920 x 1080 piksler. Internminne: 16 GB, Internminnetype: DDR4-SDRAM. Total lagringskapasitet: 512 GB, Lagringsmedier: SSD. Mobilnettverksgenerasjon: 4G. Operativsystemprogramvare 04: Windows 10 Pro. Produktfarge: Sort

Design

Product type *	Mobile workstation
Product colour *	Black
Form factor *	Clamshell
Country of origin	China

Display

Display diagonal *	39.6 cm (15.6")
Display resolution *	1920 x 1080 pixels
Touchscreen *	✘
HD type	Full HD
Panel type	IPS
LED backlight	✔
Native aspect ratio	16:9

Processor

Processor manufacturer *	Intel
Processor family *	Intel® Core™ i7
Processor generation	7th gen Intel® Core™ i7
Processor model *	i7-7820HQ
Processor cores	4
Processor threads	8
Processor boost frequency	3.9 GHz
Processor frequency *	2.9 GHz
Processor cache	8 MB
Processor cache type	Smart Cache
Processor lithography	14 nm
Processor operating modes	64-bit
Processor series	Intel Core i7-7800 Mobile Series
Processor codename	Kaby Lake
Bus type	DMI3
Thermal Design Power (TDP)	45 W
Configurable TDP-down	35 W
Tjunction	100 °C
Maximum number of PCI Express lanes	16

Keyboard

Pointing device	Touchpad + Pointing Stick
Numeric keypad *	✔
Keyboard backlit	✔
Spill-resistant keyboard	✔

Software

Operating system architecture	64-bit
Operating system installed *	Windows 10 Pro

Processor special features

Intel® Wireless Display (Intel® WiDi)	✔
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 HD Graphics	✔
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® Smart Cache	✔
Intel® AES New Instructions (Intel® AES-NI)	✔
Intel Trusted Execution Technology	✔
Intel Enhanced Halt State	✔
Intel VT-x with Extended Page Tables (EPT)	✔

Processor

PCI Express slots version	3.0
PCI Express configurations	1x16, 1x8, 2x4, 2x8
ECC supported by processor	✗

Memory

Internal memory *	16 GB
Internal memory type	DDR4-SDRAM
Memory clock speed	2400 MHz
Memory form factor	SO-DIMM
Memory layout (slots x size)	1 x 16 GB
Memory slots	4x SO-DIMM
Maximum internal memory *	64 GB

Storage

Total storage capacity *	512 GB
Storage media *	SSD
Total SSDs capacity	512 GB
Number of SSDs installed	1
SSD capacity	512 GB
SSD interface	PCI Express
Optical drive type *	✗
Card reader integrated	✔
Compatible memory cards	SD, SDHC, SDXC

Graphics

Discrete graphics card model *	NVIDIA® Quadro® M2200
Discrete graphics card memory	4 GB
Discrete graphics memory type	GDDR5
On-board graphics card *	✔
Discrete graphics card *	✔
On-board graphics card family	Intel® HD Graphics
On-board graphics card model *	Intel® HD Graphics 630
On-board graphics card base frequency	350 MHz
On-board graphics card dynamic frequency (max)	1100 MHz
Maximum on-board graphics card memory	64 GB
On-board graphics card DirectX version	12.0
On-board graphics card OpenGL version	4.4
On-board graphics card ID	0x591B

Audio

Audio system	Bang & Olufsen
Number of built-in speakers	2
Built-in microphone	✔

Camera

Front camera	✔
Front camera signal format	720p

Network

Mobile network generation	4G
3G standards	HSPA+
4G standard	LTE
Wi-Fi	✔
Top Wi-Fi standard *	Wi-Fi 5 (802.11ac)
Wi-Fi standards	802.11a, Wi-Fi 5 (802.11ac), 802.11b, 802.11g, Wi-Fi 4 (802.11n)
Mobile network connection *	✔
Ethernet LAN	✔
Ethernet LAN data rates	10,100,1000 Mbit/s

Processor special features

Intel® Secure Key	✔
Intel TSX-NI	✔
Intel Stable Image Platform Program (SIPP)	✔
Intel® OS Guard	✔
Intel Software Guard Extensions (Intel SGX)	✔
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 28 mm
Supported instruction sets	AVX 2.0, SSE4.1, SSE4.2
CPU configuration (max)	1
Embedded options available	✗
Graphics & IMC lithography	14 nm
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	1.00
Intel Secure Key Technology version	1.00
Intel Small Business Advantage (SBA) version	1.00
Intel TSX-NI version	1.00
Intel Virtualization Technology (VT-x)	✔
Processor ARK ID	97496
Conflict-Free processor	✔

Brand-specific features

HP JumpStart	✔
HP Recovery Manager	✔
HP Support Assistant	✔
HP Software provided	HP Performance Advisor, HP Remote Graphics Software (HP RGS), HP Velocity, HP Client Security Suite Gen3, HP ePrint Driver+JetAdvantage, HP WorkWise, HP LAN-WLAN Protection, HP Hotkey Support, HP Noise Cancellation
HP segment	Business

Battery

Battery technology	Lithium Polymer (LiPo)
Number of battery cells	9
Battery capacity *	90 Wh

Power

AC adapter power	150 W
DC-in jack	✔

Security

Cable lock slot	✔
Trusted Platform Module (TPM)	✔

Sustainability

Sustainability certificates	ENERGY STAR

Network

Bluetooth	✔
Bluetooth version	4.2

Ports & interfaces

USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity *	3
USB 3.2 Gen 2 (3.1 Gen 2) Type-C ports quantity	2
Ethernet LAN (RJ-45) ports	1
VGA (D-Sub) ports quantity	1
Combo headphone/mic port	✘

Performance

Motherboard chipset	Intel CM236

Weight & dimensions

Width	386 mm
Depth	264 mm
Height	26 mm
Weight *	2.6 kg

Packaging content

AC adapter included *	✔
Manual	✔
Quick start guide	✔
Warranty card	✔
Power cord included	✔

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