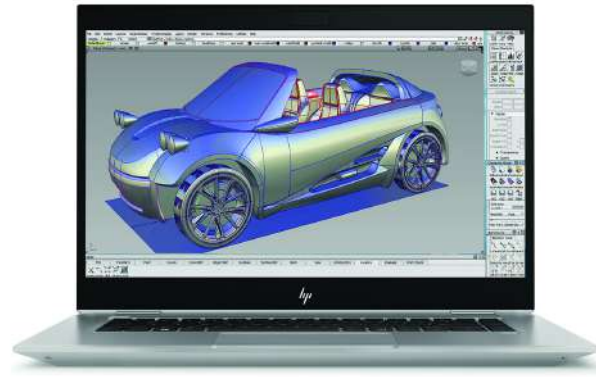




# HP ZBook Studio G5 Mobile Workstation

Smaller, faster and brighter than ever

Get the perfect blend of ultra-slim design & pro-grade performance in the new HP ZBook Studio. Remove limitations from your creative workflow with fast editing and rendering, and bring your ideas to life on HP's brightest 4K UHD laptop<sup>1</sup> display.



HP recommends Windows 10 Pro.

#### HP's brightest 4K UHD laptop display

- See your work in one billion vibrant colors on the HP DreamColor display with 600 nits of brightness. Master color-critical work with 100% Adobe RGB coverage that helps maintain perfect color every single time.

#### More powerful than ever before

- Get ultra fast performance with the latest Intel® Core™ i9 processors and 64 GB memory<sup>2</sup>. Render photorealistic images with certified NVIDIA® Quadro® P2000 graphics - optimized for stability and peak performance with professional software apps.

#### HP's most secure mobile workstation

- Protect your work with industry-leading security features. A touch of a button activates HP Sure View<sup>3</sup> privacy screen to protect against visual hacking and RAID 1<sup>4</sup> maintains a backup copy of all your files in case you ever need it.

#### Featuring

- Be productive in any situation. Windows 10 Pro and powerful security, collaboration, and connectivity features from HP help you power through your day on the HP ZBook Studio.
- Do more at once with next-generation 6-core Intel® Core™ i9 or Intel® Xeon® processors designed to handle complex, multi-threaded applications like Adobe Premier Pro.
- Seamlessly edit your designs and render multi-layered files with certified NVIDIA® Quadro® P2000 graphics, optimized for stability and performance with professional software apps.
- Create seamlessly. Save and access large files locally with up to 4 TB local NVMe storage, up to 21 times faster than standard HDD storage and six times faster than SATA SSD.
- Get remarkable, real time performance running multiple applications simultaneously with up to 64 GB RAM.
- Take your work on the road with up to 16 hours of battery life for maximum productivity. When you need it, recharge ultra-fast (50% in just 45 minutes).
- Travel anywhere with this powerful laptop that weighs only 4.4 pounds. Get a full-sized, backlit minor spill-resistant keyboard for worry-free, flexible working on-the-go.
- Take your work outdoors with the anti-glare display and built in ambient light sensor that dims or brightens based on your surroundings.
- Host virtual meetings with the HP Collaboration Keyboard, HP World Facing Microphone & optional web cam. Get premium audio with 4 speakers tuned by Bang & Olufsen & a discrete amp.
- Experience fast transfer and upload speeds with dual Thunderbolt™ 3 ports. Keep all your devices and peripherals connected with 2 USB 3.0, 1 HDMI and 1 SD card port.
- Confidently take your work anywhere knowing your HP ZBook Studio was built for 24 x 7 x 365 workloads and passed 14 rigorous military standard tests like shock, drop and dust.
- Innovative docking solution that takes you from laptop to desktop experience. Connect dual 4K UHD displays, charge your devices, take a conference call, and transfer data quickly.

## HP ZBook Studio G5 Mobile Workstation Specifications Table



Available Operating Systems	Windows 10 Pro 64 – HP recommends Windows 10 Pro for business <sup>1</sup> Windows 10 Home 64 <sup>1</sup> Windows 10 Pro for Workstations 64 <sup>1</sup> Red Hat® Enterprise Linux® 7 – Web support only <sup>32</sup> FreeDOS 2.0
Processor family <sup>2,3,30,31,34</sup>	8th Generation Intel® Core™ i9 processor (i9-8950HK); 8th Generation Intel® Core™ i7+ processor (Core™ i7 and Intel® Optane™ memory) (i7-8750H, i7-8850H); 8th Generation Intel® Core™ i7 processor (i7-8750H, i7-8850H); 8th Generation Intel® Core™ i5+ processor (Core™ i5 and Intel® Optane™ memory) (i5-8300H, i5-8400H); 8th Generation Intel® Core™ i5 processor (i5-8300H, i5-8400H); 9th Generation Intel® Core™ i9 processor; 9th Generation Intel® Core™ i7 processor
Available Processors <sup>2,3,30,31,34</sup>	Intel® Xeon® E 2186M vPro™ with Intel® UHD Graphics P630 (2.9 GHz base frequency, up to 4.8 GHz with Intel® Turbo Boost Technology, 12 MB cache, 6 cores); Intel® Xeon® E 2176M vPro™ with Intel® UHD Graphics P630 (2.7 GHz base frequency, up to 4.4 GHz with Intel® Turbo Boost Technology, 12 MB cache, 6 cores); Intel® Core™ i9-9980HK with Intel® UHD Graphics 630 (2.4 GHz base frequency, up to 5.0 GHz with Intel® Turbo Boost Technology, 16 MB cache, 8 cores); Intel® Core™ i9-9980H with Intel® UHD Graphics 630 (2.3 GHz base frequency, up to 4.8 GHz with Intel® Turbo Boost Technology, 16 MB cache, 8 cores); Intel® Core™ i9 8950HK with Intel® UHD Graphics 630 (2.9 GHz base frequency, up to 4.8 GHz with Intel® Turbo Boost Technology, 12 MB cache, 6 cores); Intel® Core™ i7-8750H with Intel® UHD Graphics 630 (2.2 GHz base frequency, up to 4.1 GHz with Intel® Turbo Boost Technology, 9 MB cache, 6 cores); Intel® Core™ i7 9850H with Intel® UHD Graphics 630 (2.6 GHz base frequency, up to 4.6 GHz with Intel® Turbo Boost Technology, 12 MB cache, 6 cores); Intel® Core™ i7 9750H with Intel® UHD Graphics 630 (2.6 GHz base frequency, up to 4.5 GHz with Intel® Turbo Boost Technology, 12 MB cache, 6 cores); Intel® Core™ i7 8850H vPro™ with Intel® UHD Graphics 630 (2.6 GHz base frequency, up to 4.3 GHz with Intel® Turbo Boost Technology, 9 MB cache, 6 cores); Intel® Core™ i5-8300H with Intel® UHD Graphics 630 (2.3 GHz base frequency, up to 4.0 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores); Intel® Core™ i5 8400H vPro™ with Intel® UHD Graphics 630 (2.5 GHz base frequency, up to 4.2 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores)
Maximum memory	64 GB DDR4-2667 non-ECC SDRAM; 32 GB DDR4-2667 ECC SDRAM; 32 GB DDR4-2667 non-ECC SDRAM <sup>5,35</sup> Transfer rates up to 2667 MT/s.
Memory slots	2 SODIMM
Internal storage	500 GB up to 1 TB 7200 rpm SATA <sup>6</sup> up to 500 GB 7200 rpm SATA SED <sup>6</sup> up to 500 GB 7200 rpm SATA FIPS 140-2 SED <sup>6</sup> 500 GB up to 2 TB SATA SSHD <sup>6</sup> 256 GB up to 1 TB SATA SSD <sup>6</sup> up to 256 GB M.2 SATA SED SSD <sup>6</sup> 256 GB up to 2 TB PCIe® NVMe™ M.2 SSD <sup>6</sup> 256 GB up to 512 GB PCIe® NVMe™ M.2 SED SSD <sup>6</sup> 2 x 1 TB up to 2 x 2 TB PCIe® NVMe™ M.2 SSD <sup>6,35,36</sup>
Display	HP DreamColor 39.62 cm (15.6") diagonal 4K IPS anti-glare LED-backlit, 600 cd/m <sup>2</sup> , 100% AdobeRGB (3840 x 2160); 39.62 cm (15.6") diagonal 4K IPS eDP + PSR anti-glare LED-backlit and ambient light sensor, 400 cd/m <sup>2</sup> (3840 x 2160); 39.62 cm (15.6") diagonal FHD IPS eDP + PSR anti-glare LED-backlit with ambient light sensor, 400 cd/m <sup>2</sup> (1920 x 1080); HP Sure View 39.62 cm (15.6") diagonal FHD IPS eDP + PSR LED-backlit touch screen with Corning® Gorilla® Glass 4, 650 cd/m <sup>2</sup> (1920 x 1080) <sup>8</sup>
Available Graphics	Integrated: Intel® UHD Graphics 630; Intel® UHD Graphics P630 <sup>8,9</sup> Discrete: NVIDIA® Quadro® P1000 (4 GB GDDR5 dedicated); NVIDIA® Quadro® P2000 (4 GB GDDR5 dedicated) <sup>10</sup> (Intel® UHD Graphics 630 integrated on Core™ i7, Core™ i5 and Core™ i9 processors. Intel® UHD Graphics P630 integrated on Xeon® processors.)
Audio	HP tuned Bang & Olufsen, quad stereo speakers, HP World Facing Microphone supporting HP Noise Reduction Software, keyboard functions keys for volume up and down, combo microphone/headphone jack, HD audio, HP Clear Sound Amp <sup>13</sup>
Expansion slots	1 UHS-II SD card reader (SD supports next generation secure digital and is backward compatible to SDHC, SDXC)
Ports and Connectors	Left side: 1 USB 3.0; 1 USB 3.0 (charging) Right side: 1 HDMI 2.0; 1 headphone/microphone combo; 1 power connector; 2 USB 3.1 Type-C™ Thunderbolt™ 3 (DisplayPort™ 1.3)
Input devices	HP Collaboration Keyboard, full-size, spill-resistant, backlit, with drain and DuraKeys, clickpad with image sensor and glass surface, multi-touch gestures and taps enabled; Image sensor clickpad with on/off button, two-way scroll, gestures, two buttons;
Communications	WLAN: Intel® Dual Band Wireless-AC 9560 802.11ac (2x2) Wi-Fi® and Bluetooth® 5.0 Combo; Intel® Dual Band Wireless-AC 9560 802.11ac (2x2) Wi-Fi® and Bluetooth® 5.0 Combo, non-vPro™ <sup>7,12</sup> ; (Optional Near Field Communication (NFC) module)
Camera	HP Privacy HD IR Camera 720p, face authentication with Windows Hello <sup>8,11,13,29</sup>
Available Software	Bing search for IE11; Buy Office; HP ePrint Driver + JetAdvantage; HP Hotkey Support; HP Noise Cancellation Software; HP Performance Advisor; HP Recovery Manager; HP Remote Graphics Software; HP Support Assistant; HP Velocity; Skype for Business Certified; HP LAN-WLAN Protection; HP JumpStart; HP Client Security Suite Gen4 <sup>14,15,16,17</sup>
Security management	Absolute persistence module; Common Criteria EAL4+ Augmented Certified Discrete TPM 2.0 Embedded Security Chip; DriveLock and Automatic DriveLock; HP Device Access Manager; HP FingerPrint Sensor; HP Password Manager; HP Power On Authentication; HP Security Manager; Pre-boot authentication; HP Sure Click; Measured Boot; HP BIOS Config Utility (BCU); HP Client Catalog; HP Driver Packs; HP System Software Manager (SSM); HP Manageability Integration Kit Gen2; HP BIOSphere with Sure Start Gen4; HP Secure Disk Erase; HP Host Based Mac Address; Windows Defender <sup>18,19,20,21,25,26,27,28</sup>
Power	150 W Slim Smart external AC power adapter
Battery type	HP Long Life 6-cell, 95.6 Wh Li-ion polymer; HP Long Life 4-cell, 64 Wh Li-ion polymer <sup>25,33</sup>
Dimensions	36 x 25.4 x 0.88 to 1.74 cm (front to rear)
Weight	Starting at 2 kg (Weight varies by configuration and components.)
Ergonomic features	##displaytiltswiv##
Energy efficiency compliance	ENERGY STAR® certified and EPEAT® registered configurations available <sup>23</sup>
Environmental specifications	Low halogen <sup>24</sup>
Warranty	3 year (3-3-0) limited warranty and service offering includes 3 years of parts and labor. Terms and conditions vary by country.

## HP ZBook Studio G5 Mobile Workstation

### Accessories and services (not included)

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#### HP 17.3 Business Backpack



Keep your hands free and your notebook safe with the HP 17.3 Business Backpack, designed to go with you in and out of the office and on the road. It has lockable zippers, a secure RFID pocket, and room for your device up to 17.3" diagonal, phone, accessories, and so much more. Engineered for demanding graphics and processor intensive applications. Bringing powerful, intelligently engineered workstations to power users who demand IT that performs – with uncompromising graphics and speed. HP Workstations are easy-to-buy, quick-to-deploy and simple-to-maintain solutions that support businesses, grow with complex needs and anticipate challenges.

**Product number:** 2SC67AA

#### HP 150W Slim Smart AC Adapter (4.5mm)



Add an additional adapter and always have one available in the office or at home. Engineered for demanding graphics and processor intensive applications. Bringing powerful, intelligently engineered workstations to power users who demand IT that performs – with uncompromising graphics and speed. HP Workstations are easy-to-buy, quick-to-deploy and simple-to-maintain solutions that support businesses, grow with complex needs and anticipate challenges.

**Product number:** 4SC18AA

#### HP 3 year Next Business Day Onsite Hardware Support for Notebooks



Receive 3 years of next business day onsite HW support from an HP-qualified technician for your computing device, if the issue cannot be solved remotely.

**Product number:** U4414E

LaptopVANG.com

## HP ZBook Studio G5 Mobile Workstation

### Messaging Footnotes

- <sup>1</sup> Based on internal analysis of laptops, clamshell form factor brightness based on 4K UHD nits as of March 26, 2018.
- <sup>2</sup> 64 GB RAM planned to be available in December 2018.
- <sup>3</sup> HP Sure View integrated privacy screen is an optional feature that must be configured at purchase and functions in landscape orientation.
- <sup>4</sup> Raid 1 planned to be available in December 2018.
- <sup>5</sup> Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers and/or software to take full advantage of Windows functionality. Windows 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See <http://www.windows.com>
- <sup>9</sup> Adobe Premier Pro is sold separately.
- <sup>10</sup> NVIDIA® Quadro® P2000 graphics is a configurable option.
- <sup>11</sup> For hard drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30GB (for Windows 10) of system disk is reserved for system recovery software.
- <sup>12</sup> 64 GB RAM planned to be available in December 2018.
- <sup>13</sup> Windows 10 MM14 battery life will vary depending on various factors including 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 [www.bapco.com](http://www.bapco.com) for additional details.
- <sup>14</sup> Recharges the battery up to 50% within 45 minutes when the system is off or in standby mode. Power adapter with a minimum capacity of 65 watts is required. After charging has reached 50% capacity, charging will return to normal. Charging time may vary +/-10% due to System tolerance.
- <sup>15</sup> Weight will vary by configuration.
- <sup>16</sup> Ambient light sensor only available on select models with standard and full UHD (not available with HP DreamColor or privacy display models)
- <sup>17</sup> MIL-STD-810G testing is not intended to demonstrate fitness of U.S. Department of Defense (DoD) contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions. Accidental damage requires an optional HP Accidental Damage Protection Care Pack.
- <sup>18</sup> ZBook dock with Thunderbolt™ and dual displays sold separately.

### Technical Specifications Footnotes

- <sup>1</sup> Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See <http://www.windows.com>.
- <sup>2</sup> Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering, branding and/or naming is not a measurement of higher performance.
- <sup>3</sup> In accordance with Microsoft's support policy, HP does not support the Windows® 8 or Windows 7 operating system on products configured with Intel and AMD 7th generation and forward processors or provide any Windows®8 or Windows 7 drivers on <http://www.support.hp.com>
- <sup>4</sup> vPro. Some functionality of Intel® Core™ i5 with vPro™/Core™ i7 with vPro™/Core™ i9 with vPro™/Xeon® with vPro™ technology, such as Intel® Active Management technology and Intel® Virtualization technology, requires additional third-party software in order to run. Availability of future "virtual appliances" applications for Intel® Core™ i5 with vPro™/Core i7 with vPro™/XEON® with vPro™ technology is dependent on third-party software providers. Compatibility with future "virtual appliances" is yet to be determined.
- <sup>5</sup> Only 2 DIMM configurations run at 2400 MHz and 4 DIMM configurations run at 2133 MHz.
- <sup>6</sup> For storage drives GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30 GB (for Windows 10) is reserved for system recovery software.
- <sup>7</sup> Wireless cards are optional or add-on features and requires separately purchased wireless access point and internet service. Availability of public wireless access points limited. The specifications for the 802.11ac WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ac WLAN devices.
- <sup>8</sup> HD content required to view HD images.
- <sup>9</sup> Intel® HD graphics 630 is configurable as a standalone graphics option; Intel® HD graphics P630 only used when NVIDIA® Optimus™ Technology is enabled.
- <sup>10</sup> NVIDIA® Quadro® mobile professional graphics support up to four independent displays when using a HP ZBook Dock with Thunderbolt 3 (sold separately) or DP 1.2 hubs with MST. AMD Radeon™ Pro professional graphics support up to six independent displays when using an HP ZBook Dock with Thunderbolt 3 (sold separately) or DP 1.2 hubs with MST.
- <sup>11</sup> Privacy camera is not available on touchscreen.
- <sup>12</sup> Dual-microphone array when equipped with optional webcam and optional world facing microphone.
- <sup>13</sup> Optional or add-on feature.
- <sup>14</sup> HP ePrint Driver requires an internet connection to HP web-enabled printer and HP ePrint account registration (for a list of eligible printers, supported documents and image types and other HP ePrint details, see [www.hp.com/go/businessmobileprinting](http://www.hp.com/go/businessmobileprinting)).
- <sup>15</sup> HP Remote Graphics Software requires a Windows, Linux®, or Mac® OS X 10.10 and newer operating system and network access.
- <sup>17</sup> HP Client Security Suite Gen 4 requires Windows and Intel® or AMD 8th generation processors.
- <sup>18</sup> BIOS Absolute Persistence module is shipped turned off, and will be activated when customers purchase and activate a subscription. Service may be limited. Check with Absolute for availability outside the U.S. The optional subscription service of Absolute Recovery Guarantee is a limited warranty. Certain conditions apply. For full details visit: <http://www.absolute.com/company/legal/agreements/computrace-agreement>.
- <sup>19</sup> Finger Sensor is optional
- <sup>20</sup> HP Manageability Integration Kit can be downloaded from <http://www.hp.com/go/clientmanagement>.
- <sup>21</sup> HP BIOSphere Gen4 requires Intel® or AMD 8th generation processors. HP Sure Start Gen4 is available on HP Z Workstations products equipped with 8th generation Intel® or AMD processors.
- <sup>22</sup> HP Password manager requires Windows.
- <sup>23</sup> EPEAT® registered where applicable. EPEAT registration varies by country. See [www.epeat.net](http://www.epeat.net) for registration status by country.
- <sup>24</sup> External power supplies, power cords, cables and peripherals are not low halogen. Service parts obtained after purchase may not be low halogen.
- <sup>25</sup> Battery is internal and not replaceable by customer. Serviceable by warranty. Batteries have a default one year limited warranty except for Long Life batteries which will have same 1-year or 3-year limited warranty as the platform.
- <sup>26</sup> HP Secure Disk Erase is for the methods outlined in the National Institute of Standards and Technology Special Publication 800-88.
- <sup>27</sup> HP Sure Click is available on select HP platforms and supports Microsoft® Internet Explorer, Google Chrome, and Chromium™. Supported attachments include Microsoft Office (Word, Excel, PowerPoint) and PDF files in read only mode. Check <http://h20195.www2.hp.com/v2/GetDocument.aspx?docname=4AA7-0922ENW> for all compatible platforms as they become available.
- <sup>28</sup> Windows Defender Opt In, Windows 10, and internet connection required for updates.
- <sup>29</sup> Windows Hello optional
- <sup>30</sup> Intel® Optane™ memory system acceleration does not replace or increase the DRAM in your system.
- <sup>31</sup> Intel Turbo Boost performance varies depending on hardware, software and overall system configuration. See [www.intel.com/technology/turboboost](http://www.intel.com/technology/turboboost) for more information.
- <sup>32</sup> Supported, not preloaded.
- <sup>33</sup> 4 cell now only w/ UMA, and not possible with DSC.
- <sup>34</sup> Intel® Optane™ memory is only available if HDD is selected and 2nd M.2 is not selected.
- <sup>35</sup> Available in December 2018.
- <sup>36</sup> RAID 1 Configuration requires 2 NVMe PCIe M.2 drives; both drives must be the same capacity and only available on NVMe technology.

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