ProductSheet HP Z2 Small Form Factor G9 Workstation (87C25UT)



Full size Z tower power at half the size

Get all the power of a full size tower at a fraction of the size. Re-engineered to fit full-height, full-length graphics while leaving room for upgrades and expansion, the Z2 SFF delivers high performance for your intensive workflow —from 3D design to real time ray tracing —now and in the future.



HP recommends Windows 11 Pro for business Full height, full length performance

Design, simulate and real time ray trace on a Z SFF -- FHFL pro graphics and Intel[®] Core™ processors.

Configurable for today. Expandable for tomorrow.

Accelerate your current workflow with options across processor, graphics, memory, storage, and I/O ports.

ISV Certified

Work with confidence knowing your PC is certified with leading software applications to ensure peak performance.[3]

Featuring

Windows 11

Work anywhere without compromising on performance or security with Windows 11 powered by HP's collaboration and connectivity technology.

Intel[®] Core™ i7 processor

Run several CPU−heavy programs simultaneously without sacrificing performance with an Intel[®] Core[™] i7 processor. ^[4]

Security is your top priority

The HP Wolf Pro Security Edition provides preconfigured enterprise-level PC protection for small and medium sized businesses.

Smaller, Functional Design

The stunning new design features front and rear ledges, so you can easily move your system from location to location.

Tool-less Access

Evolve your work. Evolve your rig. With a tool-less sliding access cover, you can easily get into the the interior, and customize your Z to fit your needs.

Specifications

Compatible displays (Supports 8 displays, driving 8 displays requires the use of integrated and discrete graphics ports. Eac source can drive a total of 4 displays. At least one of the integrated graphics ports need to drive two dis in a daisy chain configuration.) Audio Reatek ALC3252 Minimum dimensions (W x D x H) 38.4 x30.8 x10 cm (Standard desktop orientation.) Minimum dimensions (W x D x H) 15.1 x12.1 x3.39 s1n (Standard desktop orientation.) Weight Starting at 5.0 kg (Standard desktop orientation.) Weight Starting at 5.0 kg (Exact weights depend upon configuration (System weight only)) Keyboard HP USE3 200K Keyboard Pointing device HP Wired 320M Mouse Ports 1 buerSpeed USB Type-C* 20Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4, HP Sleep and Charg SuperSpeed USB Type-C* 20Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4, HP Sleep and Charg SuperSpeed USB Type-A 10Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4, HP Sleep and Charg SuperSpeed USB Type-A 10Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4, HP Sleep and Charg SuperSpeed USB Type-A 10Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4, HP Sleep and Charg SuperSpeed USB Type-A 10Gbps signaling rate (USB Power 1.4 k) (HP Leight PCLe 3 x6; 1 hatf-height PCLe 4 x16; 1 hatf-height PCLe 4		
Processor Intel® Core® 17-13700 (up to 5.2 GHz with Intel® Turbo Boost Technology, 30 MB L3 cache, 16 cores, 24 thread Memory 16 GB DDRS-4800 MHz RAM (1 x 16 GB) Internal Storage 512 GB HP Z Turbo Drive PCLe® NVMe® TLC M.2 SSD Internal drive bays One 2.5* HDD; One 3.5* HDD; Three M.2 NVME 2280 SSD External drive bays One 2.5* HDD; One 3.5* HDD; Three M.2 NVME 2280 SSD Graphics Intel® UHD Graphics Graphics Intel® UHD Graphics Graphics (integrated) Gitter MD Graphics Gompatible displays Gitter MD Graphics Audio Reater ALC3252 Minimum dimensions (W x D x H) 38.4 x 30.8 x10 cm Cistandard desktop orientation.) Starting at 5.0 kg Weight Cistandard desktop orientation.) Weight Starting at 5.0 kg Cistandard desktop orientation.) Starting at 5.0 kg Weight Cistandard desktop orientation.) Weight Cistandard desktop orientation.) Keyboard HP Vist 320K Keyboard Ports Starting at 5.1 kg Starting at 5.1 kg Starting at 5.1 kg Starting at 5.9 kg Por	Operating system	Windows 11 Pro
Memory 16 68 DDR5-4800 MHz RAM (1 x 16 GB) Internal drive bays One 2.5* HDD; One 3.5* HDD; Three M.2 NVME 2280 SSD External drive bays One 3.5* HDD; One slim DDD Graphics Integrated Graphics (Integrated) Integrated Compatible displays All HP 2 Displays and HP DreamC lot Displays are supported. For more information see www.hp.com/gp1/zdi Compatible displays Source can drive a todal of 4 displays. A least one of the integrated and discrete graphics ports. East source can drive a todal of 4 displays. At least one of the integrated graphics ports meed to drive two dis in a diaby chain configuration.) Minimum dimensions (W x D x H) 36.4 x 30.8 x 10 cm (Standard desktop orientation.) Minimum dimensions (W x D x H) 15.1 x 12.1 x 3.95 in (Standard desktop orientation.) Weight Starting at 3.0 kg (Exact weights depend upon configuration (System weight only!)) Keyboard HP USB 320K Keyboard Pointing device HP Wired 320M Mouse Ports 1 SuperSpeed USB Type-C* 20Gbps signaling rate (USB Power Delivery, DisplayPort** 1.4, HP Sleep and Charg SuperSpeed USB Type-A 10Gbps signaling rate (USB Power Delivery, DisplayPort** 1.4, HP Sleep and Charg SuperSpeed USB Type-A 10Gbps signaling rate (1 charging); tuniversal audio jack 1 half-height PCle4 x 16, 1 half-height PCle3 x4; 1 half-height PCle3 x4; 1 half-height PCle3 x4; 1 half-height PCle3 x4;	Processor family	13th Generation Intel® Core™ i7 processor
Memory 16 68 DDR5-4800 MHz RAM (1 x 16 GB) Internal drive bays One 3.5" HDD; One 3.5" HDD; Three M.2 NVME 2280 SSD External drive bays One 3.5" HDD; One slim ODD Graphics Integrated Graphics (Integrated) Integrated Compatible displays Supports 8 displays, driving 8 displays, requires the use of integrated and discrete graphics ports. Eac source can drive a total of 4 displays. At least one of the integrated and discrete graphics ports. Eac source can drive a total of 4 displays. At least one of the integrated and discrete graphics ports. Eac source can drive a total of 4 displays. At least one of the integrated graphics ports meed to drive two drive total displays Minimum dimensions (W x D x H) 36.4 x 30.6 x 10 cm (Standard desktop orientation.) Weight Starting at 3.0 kg (Exact weights depend upon configuration (System weight only)) Keyboard HP USB 320K Keyboard Pointing device HP Wired 320M Mouse Ports 1 SuperSpeed USB Type-C* 20Gbps signaling rate (USB Power Delivery, DisplayPort** 1.4, HP Sleep and Charg SuperSpeed USB Type-C* 20Gbps signaling rate (USB Power Delivery, DisplayPort** 1.4, HP Sleep and Charg SuperSpeed USB Type-C* 20Gbps signaling rate (USB Power Delivery, DisplayPort** 1.4, HP Sleep and Charg SuperSpeed USB Type-C* 20Gbps signaling rate (USB Power Delivery, DisplayPort** 1.4, HP Sleep and Charg SuperSpeed USB Type-C* 20Gbps signaling rate (USB Power Delivery, DisplayPort** 1.4, HP Sleep and Charg SuperSpeed USB Type-A 10Gbps signaling rate; 1 thalf-height PCE 3 x4 (1	Processor	Intel® Core™ i7-13700 (up to 5.2 GHz with Intel® Turbo Boost Technology, 30 MB L3 cache, 16 cores, 24 threads) ^{[6,7}
Internal drive bays One 2.5" HDD; One 3.5" HDD; Three M.2 NVME 2280 SSD External drive bays One 3.5" HDD; One slim ODD Graphics Integrated Graphics Integrated Intel® UDB Graphics AILLP Z Displays and HD DreamColor Displays are supported. For more information see www.hp.com/go/zdi Source can three a total of 4 displays requires the use of integrated and discrete graphics ports. Bas Source can three a total of 4 displays, requires the use of integrated and discrete graphics ports. Audio Reattek AL 232 E Minimum dimensions (W x D x H) 38.4 x 30.8 x 10 cm (Standard desktop orientation.) (Standard desktop orientation.) (Stantig 3.5 \ Ng (S	Memory	
External drive bays One 3.5" HDD; One slim ODD Graphics Integrated Graphics (integrated) Integrated Graphics (integrated) Integrated Compatible displays Graphics of the set of the set of the set of the set of integrated and discrete graphics ports. Eas source can drive a total of 4 displays: At least one of the integrated graphics ports need to drive two dis in a daisy chain configuration.) Audio Realtek ALC3252 Minimum dimensions (W x D x H) 38.4 x 30.8 x10 cm (Standard desktop orientation.) (Standard desktop orientation.) (Standard desktop orientation.) Weight Starting at 5.0 kg (Standard desktop orientation.) Weight Starting at 1.1 lb (Standard desktop orientation.) Keyboard HP USB 320K Keyboard Ports 1 SuperSpeed USB Type-C ^e 20Gbps signaling rate (USB Power Delivery, DisplayPort ^m 1.4, HP Sleep and Charg SuperSpeed USB Type-A 10Gbps signaling rate (I charging), 1 universal audio jack Ports 1 superSpeed USB Type-C ^e 200 signaling rate (I Charging), 1 universal audio jack Ports 1 audio-in; 1 audio-ou; 1; RL-3; 2 DisplayPort ^m 1.4; Z SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-A 30.8, cm Package dimensions (W X D X H) 10 x 38.4 x 30.8, cm P	Internal Storage	512 GB HP Z Turbo Drive PCIe® NVMe™ TLC M.2 SSD
External drive bays One 3.5" HDD; One slim ODD Graphics Integrated Graphics (integrated) Integrated Graphics (integrated) Integrated Compatible displays Graphics of the set of the set of the set of the set of integrated and discrete graphics ports. Eas source can drive a total of 4 displays: At least one of the integrated graphics ports need to drive two dis in a daisy chain configuration.) Audio Realtek ALC3252 Minimum dimensions (W x D x H) 38.4 x 30.8 x10 cm (Standard desktop orientation.) (Standard desktop orientation.) (Standard desktop orientation.) Weight Starting at 5.0 kg (Standard desktop orientation.) Weight Starting at 1.1 lb (Standard desktop orientation.) Keyboard HP USB 320K Keyboard Ports 1 SuperSpeed USB Type-C ^e 20Gbps signaling rate (USB Power Delivery, DisplayPort ^m 1.4, HP Sleep and Charg SuperSpeed USB Type-A 10Gbps signaling rate (I charging), 1 universal audio jack Ports 1 superSpeed USB Type-C ^e 200 signaling rate (I Charging), 1 universal audio jack Ports 1 audio-in; 1 audio-ou; 1; RL-3; 2 DisplayPort ^m 1.4; Z SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-A 30.8, cm Package dimensions (W X D X H) 10 x 38.4 x 30.8, cm P		One 2.5" HDD; One 3.5" HDD; Three M.2 NVME 2280 SSD
Graphics (integrated) Intel® UHD Graphics All HP Z Displays and HP DreamColor Displays are supported. For more information see www.hp.com/go/Zdi Compatible displays Supports, chring 8 displays, chring 8 displays, chring 8 displays, and the use of integrated and discrete graphics ports. See source c an drive a total of 4 displays. At least one of the integrated graphics ports need to drive two dis in a daisy chain configuration.) Audio Realtek ALC3252 Minimum dimensions (W x D x H) 38.4 x 30.8 x10 cm (Standard desktop orientation.) Starting at 5.0 kg (Exact weights depend upon configuration (System weight only)) Weight Starting at 5.0 kg (Exact weights depend upon configuration (System weight only)) Keyboard HP US 320K Keyboard Pointing device HP Wired 320M Mouse Ports 1 SuperSpeed USB Type-C* 20Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4, HP Sleep and Charg SuperSpeed USB Type-A 10Gbps signaling rate (1 charging); 1 universal audio jack Ports 1 superSpeed USB Type-A 10Gbps signaling rate (USB pomerce) 1 half-height PCle 4 x16; 1 hul-height PCle 4 x16; 1 hul-height PCle 4 x16; 1 K hul-height PCle 4	External drive bays	One 3.5" HDD; One slim ODD
All HP Z Displays and HP DreamColor Displays are supported. For more information see www.hp.com/go/zdis Compatible displays (Supports & displays, driving & displays, requires the use of integrated and discrete graphics ports. Eac Source can drive a total of 4 displays. At least one of the integrated graphics ports. Eac Audio Reatex AL3252 Minimum dimensions (W x D x H) 38.4 x 30.8 x 10 cm (Standard desktop orientation.) Minimum dimensions (W x D x H) 15.1 x 12. x 3.9 5 in (Standard desktop orientation.) Weight Starting at 5.0 kg (Exact weights depend upon configuration (System weight only)) Keyboard HP USE 320K Keyboard Pointing device HP Wired 320M Mouse Ports SuperSpeed USB Type-C* 20Gbps signaling rate (1 charging): 1 universal audio jack I half-height PCle 4 x16; 1 half-height PCle 3 x4 (x16 connector); 1 half-height PCle 3 Yead So Stor (W X N A M) 10 x 38.4 x 30.8 x10 Yead So Stor (W X N A M) 10 x 38.4 x 30.8 x10 Ports 1 SuperSpeed USB Type-C 20Gbps signaling rate (1 Charging): 1 universal audio jack I half-height PCle 4 x16; 1 half-height PCle 3 x4 (x16 connector); 1 half-height PCle 3 Yead So Stor (W X N A M) 10 x 38.4 x 30.8 cm Ports 1 audio-in; 1	Graphics	Integrated
Compatible displays (Supports & displays, driving & displays requires, the use of integrated and discrete graphics ports. Eac source con drive a total of 4 displays. At least one of the integrated graphics ports need to drive two dis in a daisy chain configuration.) Audio Reattek ALC3252 Minimum dimensions (W x D x H) 38.4 x 30.8 x 10 cm (Standard desktop orientation.) Minimum dimensions (W x D x H) 15.1 x 12.1 x 3.95 in (Standard desktop orientation.) Weight Starting at 5.0 kg (Exact weights depend upon configuration (System weight only)) Weight Starting at 1.1 lb (Exact weights depend upon configuration (System weight only)) Keyboard HP US 320K Keyboard Ports SuperSpeed USB Type-C* 20Gbps signaling rate (USB Power Delivery, DisplayPort* 1.4, HP Sleep and Charg SuperSpeed USB Type-C* 200 bys signaling rate (1 charging); 1 universal audio jack Ports 1 balf-height PCle4 x16; 1 half-height PCle3 x4 (16 connector) (2 M.2 2230 stof tor WLAN and 3 M.2 2200 stofs or strage) Ports 1 audio-in; 1 audio-out; 1 RJ-45; 2 DisplayPort************************************	Graphics (integrated)	Intel® UHD Graphics
Minimum dimensions (W x D x H) 38.4 x 30.8 x 10 cm (Standard desktop orientation.) Minimum dimensions (W x D x H) 15.1 x 12.1 x 3.95 in (Standard desktop orientation.) Weight Starting at 5.0 kg (Exact weights depend upon configuration (System weight only)) Weight Starting at 1.1 lb (Exact weights depend upon configuration (System weight only)) Keyboard HP USB 320K Keyboard Pointing device HP Wired 320M Mouse Ports 1 SuperSpeed USB Type-4 006bps signaling rate (1 charging): 1 universal audio jack SuperSpeed USB Type-4 106bps signaling rate (1 charging): 1 universal audio jack Ports 1 balf-height PCle 4 x16; 1 half-height PCle 3 x4 (16 connector): 1 half-height PCle 4 x16; 1 half-height PCle 4 x16 (x16 connector) (1 M.2 2230 slot for WLAN and 3 M.2 2280 slots for storag) Ports Package dimensions (W x D x H) 10 x38.4 x 30.8 cm Package weight Starting at 5.9 kg Power 450 W 90% efficient, wide-ranging, active PPC ¹¹⁰¹ Ecolabels TCO Certified Energy star certified ENERGY STAR® certified Management features HP Driver Packs; HP Management Integration Kit for Microsoft System Center Configuration Management Gen System Software Manager (download); HP BIOS Configuration Utility (download) ¹¹⁸¹ Sustainable impact specifications	Compatible displays	All HP Z Displays and HP DreamColor Displays are supported. For more information see www.hp.com/go/zdisplays (Supports 8 displays, driving 8 displays requires the use of integrated and discrete graphics ports. Each source can drive a total of 4 displays. At least one of the integrated graphics ports need to drive two displays in a daisy chain configuration.)
Minimum dimensions (W x D x H) (Standard desktop orientation.) Minimum dimensions (W x D x H) 15.1 x 12.1 x 3.95 in (Standard desktop orientation.) Weight Starting at 5.0 kg (Exact weights depend upon configuration (System weight only)) Keyboard HP USB 320K Keyboard Pointing device HP Wired 320M Mouse Ports 1 SuperSpeed USB Type-C* 20Gbps signaling rate (USB Power Delivery, DisplayPort** 1.4, HP Sleep and Charg SuperSpeed USB Type-A 10Gbps signaling rate (1 charging); 1 universal audio jack Expansion slots 1 half-height PCLe 4 x16; 1 half-height PCLe 3 x4; 1 half-height PCLe 3 x4; (16 connector); (1 M. 2 2230 skit for WLAN and 3 M. 2 2280 skits for storage) Ports 1 audio-in; 1 audio-out; 1 RJ-45; 2 DisplayPort** 1.4; 2 SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-A 5Gbps signaling rate; 3 USB Type-A 480Mbps signaling rate; 1 SuperSpeed USB Type-A 5Gbps signaling rate; 3 USB Type-A 480Mbps signaling rate; 1 SuperSpeed USB Type-A 5Gbps signaling rate; 3 USB Type-A 480Mbps signaling rate; 1 SuperSpeed USB Type-A 5Gbps signaling rate; 3 USB Type-A 480Mbps signaling rate; 1 SuperSpeed USB Type-A 5Gbps signaling rate; 3 USB Type-A 480Mbps signaling rate; 1 SuperSpeed USB Type-A 5Gbps signaling rate; 3 USB Type-A 480Mbps signaling rate; 1 SuperSpeed USB Type-A 5Gbps signaling rate; 3 USB Type-A 480Mbps signaling rate; 1 SuperSpeed USB Type-A 5Gbps signaling rate; 3 USB Type-A 480Mbps signaling rate; 1 SuperSpeed USB Type-A 5Gbps signaling rate; 4 0 Su 30% efficient, wide-ranging, active PFC ¹⁰¹ Ecolabels TCO Certified Energy star certified	Audio	Realtek ALC3252
Minimum dimensions (W x D x H) (Standard desktop orientation.) Weight Starting at 5.0 kg (Exact weights depend upon configuration (System weight only)) Weight Starting at 1.1.1 lb (Exact weights depend upon configuration (System weight only)) Keyboard HP USB 320K Keyboard Pointing device HP Wired 320M Mouse Ports 1 SuperSpeed USB Type-C* 206bps signaling rate (USB Power Delivery, DisplayPort** 1.4, HP Sleep and Charg SuperSpeed USB Type-A 1060bps signaling rate (1 charging); 1 universal audio jack Th half-height PCLe4 x16; 1 half-height PCLe4 x16 (X fG connector) (1 M.2 2230 slot for WLAN and 3 M.2 2280 slots for storage) Ports 1 audio-un; 1 RU-45; 2 DisplayPort** 1.4; 2 SuperSpeed USB Type-A 106bps signaling rate; 1 SuperSpeed USB Type-A 56bps signaling rate; 3 USB Type-A 480Mbps signaling rate; 1 SuperSpeed USB Type-A 56bps signaling rate; 3 USB Type-A 480Mbps signaling rate Package dimensions (W x D x H) 10 x 38.4 x 30.8 cm Package weight Starting at 5.9 kg Power 450 W 90% efficient, wide-ranging, active PFC ^[10] Ecolabels TCO Certified Management features System Software Manager (download); HP BIOS Configuration Utility (download) ^[18] Ocean-bound plastic in speaker enclosure; 45% post-consumer recycled plasti; 25% ITE-derived closed loop plastic; Bulk packaging available; 80 Plus* Gold power supplies available; Molded paper pulp cushion inside b 100% sustainably sourced and recy	Minimum dimensions (W x D x H)	
Winnum dimensions (W x D x h) (Standard desktop orientation.) Weight Starting at 5.0 kg (Exact weights depend upon configuration (System weight only)) Weight Starting at 1.1 lb (Exact weights depend upon configuration (System weight only)) Keyboard HP USB 320K Keyboard Pointing device HP Wired 320M Mouse Ports SuperSpeed USB Type-C* 20Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4, HP Sleep and Charg SuperSpeed USB Type-C* 20Gbps signaling rate (1 charging); 1 universal audio jack Expansion slots 1 half-height PCle 4 x16; 1 half-height PCle 3 x4 (x16 connector); 1 half-height PCle 3 x6 (x16 connector); 1 half-height PCle 3 x6 (x16 connector); 1 half-height PCle 4 x16; 1 full-height PCle 4 x6; 1 half-height PCle 3 x6;		
Weight (ExacT weights "depend upon configuration (System weight only)) Weight Starting at 11.1 lb (ExacT weights depend upon configuration (System weight only)) Keyboard HP USB 320K Keyboard Pointing device HP Wired 320M Mouse Ports 1 SuperSpeed USB Type-C® 20Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4, HP Sleep and Charg SuperSpeed USB Type-A 10Gbps signaling rate (1 charging); 1 universal audio jack Expansion slots 1 half-height PCle 4 x16; 1 half-height PCle 3 x4; 1 half-height PCle 3 x4; (1 fa Connector) (1 M.2 2230 slot for WLAN and 3 M.2 2280 slots for storage) Ports 1 audio-in; 1 audio-out; 1 RJ-45; 2 DisplayPort™ 1.4; 5 DisplayPort™ 1.4; 5 DisplayPort™ 1.4; 2 DisplayPort™ 1.4; 2 DisplayPort™ 1.4; 2 DisplayPort™ 1.4; 5 DisplayPort™ 1.	Minimum dimensions (W x D x H)	
Weight (Exact weights depend upon configuration (System weight only)) Keyboard HP USB 320K Keyboard Pointing device HP Wired 320M Mouse Ports 1 SuperSpeed USB Type-C* 20Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4, HP Sleep and Charg SuperSpeed USB Type-A 10Gbps signaling rate (1 charging); 1 universal audio jack Expansion slots 1 half-height PCLe 4 x16; 1 half-height PCLe 3 x4; 1 half-height PCLe 3 x4 (x16 connector); (1 M.2 2230 skt for VLAN and 3 M.2 2280 slots for storage) Ports 1 audio-in; 1 audio-out; 1 RJ-45; 2 DisplayPort™ 1.4; 2 SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-A 5Gbps signaling rate; 3 USB Type-A 480Mbps signaling rate Package dimensions (W x D x H) 10 x 38.4 x 30.8 cm Package weight Starting at 5.9 kg Power 450 W 90% efficient, wide-ranging, active PFC ^[10] Ecolabels TC0 Certified Energy star certified ENERGY STAR® certified Management features HP Driver Packs; HP Management Integration Kit for Microsoft System Center Configuration Management Gen System Software Manager (download); HP BIOS Configuration Utility (download) ^[18] Ocean-bound plastic in speaker enclosure; 45% post-consumer recycled plastic; 25% ITE-derived closed loop Plastic; Bulk packaging available; 80 Plus® Gold power supplies available; Molded paper pulp cushion inside b 100% sustainably sourced and recyclable; Ocean-bound plastic in speaker enclosure and system fan; Contain r	Weight	Starting at 5.0 kg
Pointing device HP Wired 320M Mouse Ports 1 SuperSpeed USB Type-C* 20Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4, HP Sleep and Charg SuperSpeed USB Type-A 10Gbps signaling rate (1 charging); 1 universal audio jack Expansion slots 1 half-height PCle 4 x16; 1 half-height PCle 3 x4; 1 half-height PCle 3 x4 (x16 connector); 1 half-height PCle 4 full-height PCle 4 x16; 1 full-height PCle 4 x4; 1 half-height PCle 3 x4 (x16 connector); 1 half-height PCle 3 full-height PCle 4 x16; 1 full-height PCle 4 x6; 1 half-height PCle 3 x4; 1 half-height PCle 3 x4 (x16 connector); 1 half-height PCle 3 full-height PCle 4 x16; 1 full-height PCle 4 x4; 1 half-height PCle 3 x4 (x16 connector); 1 half-height PCle 3 full-height PCle 4 x16; 1 full-height PCle 4 x6; 1 half-height PCle 3 x4; 1 half-height PCle 3 x4 (x16 connector); 1 half-height PCle 3 full-height PCle 4 x16; 1 full-height PCle 4 x6; 1 half-height PCle 3 x4; 1 half-height PCle 3 x4 (x16 connector); 1 half-height PCle 4 x16; 1 half-height PCle 3 x4; 1 half-height PCle 3 x4 (x16 connector); 1 half-height PCle 4 x16; 1 half-height PCle 3 x4; 1 half-height PCle 3 x4; 1 half-height PCle 3 x4 (x16 connector); 1 half-height PCle 3 x4; 1 half-height PCle 3 x4; 1 half-height PCle 3 x4; 1 half-height PCle 3 x4 (x16 connector); 1 half-height PCle 3 x4; 1 half-height PCle 3 x4; 1 half-height PCle 3 x4 (x16 connector); 1 half-height PCle 3 x4; 1 half-height PCle 3 x4 (x16 connector); 1 half-height PCle 3 x4; 1 half-height PCle 3 x4; 1 PCle 4 x16; 1 PCle 3 x4; 1 PCle ardware Diagnostics UEF; HP Support Assistant; HP PC Hardware Diagnostics UEF; HP Support Assistant; HP PC Hardware Diagnostics UEF; HP Supre Assistant; HP PC Hard	Weight	
Ports 1 SuperSpeed USB Type-C® 20Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4, HP Sleep and Charg SuperSpeed USB Type-A 10Gbps signaling rate (1 charging); 1 universal audio jack Expansion slots 1 half-height PCLe 4 x16; 1 half-height PCLe 3 x4; 1 half-height PCLe 3 x4 (x16 connector); 1 half-height PCLe 3 x6; 1 half-height PCLe 4 x16; 1 half-height PCLe 4 x16; 1 half-height PCLe 3 x4; 1 half-height PCLe 3 x4 (x16 connector); 1 half-height PCLe 3 x6; 1 half-height PCLe 3 x4; 1 half-height PCLe 3 x4; 1 half-height PCLe 3 x4 (x16 connector); 1 half-height PCLe 3 x6; 1 half-height PC	Keyboard	HP USB 320K Keyboard
Ports SuperSpeed USB Type-A 10Gbps signaling rate (1 charging); 1 universal audio jack Expansion slots 1 half-height PCle 4 x16; 1 half-height PCle 3 x4; 1 half-height PCle 3 x4 (x16 connector); 1 half-height PCle 3 x10; 1 half-height PCle 4 x16; 1 full-height PCle 3 x4; x16 connector); (1 M2 2230 slots for storage) Ports 1 audio-in; 1 audio-out; 1 RJ-45; 2 DisplayPort™ 1.4; 2 SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-A 5Gbps signaling rate; 3 USB Type-A 480Mbps signaling rate Package dimensions (W x D x H) 10 x 38.4 x 30.8 cm Package weight Starting at 5.9 kg Power 450 W 90% efficient, wide-ranging, active PFC ^[10] Ecolabels TCO Certified Energy star certified ENERGY STAR® certified Management features System Software Manager (download); HP BIOS Configuration Utility (download) ^[18] Ocean-bound plastic in speaker enclosure; 45% post-consumer recycled plastic; 25% ITE-derived closed loog plastic; Bulk packaging available; 80 Plus® Gold power supplies available; Molded paper pulp cushio	Pointing device	HP Wired 320M Mouse
Expansion slots full-height PCle 4 x16; 1 full-height PCle 4 x16 (x16 connector) (1 M.2 2230 slot for WLAN and 3 M.2 2280 slots for storage) Ports 1 audio-in; 1 audio-out; 1 RJ-45; 2 DisplayPort™ 1.4; 2 SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-A 5Gbps signaling rate; 3 USB Type-A 480Mbps signaling rate Package dimensions (W x D x H) 10 x 38.4 x 30.8 cm Package weight Starting at 5.9 kg Power 450 W 90% efficient, wide-ranging, active PFC ^[10] Ecolabels TCO Certified Energy star certified ENERGY STAR® certified Management features HP Driver Packs; HP Management Integration Kit for Microsoft System Center Configuration Management Gen System Software Manager (download); HP BIOS Configuration Utility (download) ^[18] Ocean-bound plastic in speaker enclosure; 45% post-consumer recycled plastic; 25% ITE-derived closed loog plastic; Bulk packaging available; 80 Plus® Gold power supplies available; Molded paper pulp cushion inside b 100% sustainably sourced and recyclable; Ocean-bound plastic in speaker enclosure and system fan; Contain recycled metal Security management HP Secure Erase; HP Sure Click; HP BIOSphere Gen6; HP Sure Admin; Hood Sensor Optional Kit; HP Client Secur Manager Gen6; HP Sure Start Gen7; HP Sure Recover Gen4; HP Sure Sense Gen2; HP Sure Run Gen5 ^[19,20,21,22,23,24,25,26,31] Settuara included HP PC Hardware Diagnostics UEFI; HP Support Assistant; HP PC Hardware Diagnostics Windows; ZCentral Recover Gen4; HP Sure Sens Gen2; HP Sure Run Gen5 ^{[19,20,21,22,23,24,}	Ports	1 SuperSpeed USB Type-C [®] 20Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4, HP Sleep and Charge); 4 SuperSpeed USB Type-A 10Gbps signaling rate (1 charging); 1 universal audio jack
Ports 1 audio-in; 1 audio-out; 1 RJ-45; 2 DisplayPort™ 1.4; 2 SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-A 5Gbps signaling rate; 3 USB Type-A 480Mbps signaling rate Package dimensions (W x D x H) 10 x 38.4 x 30.8 cm Package weight Starting at 5.9 kg Power 450 W 90% efficient, wide-ranging, active PFC ^[10] Ecolabels TC0 Certified Energy star certified ENERGY STAR® certified Management features HP Driver Packs; HP Management Integration Kit for Microsoft System Center Configuration Management Gen System Software Manager (download); HP BIOS Configuration Utility (download) ^[18] Sustainable impact specifications Ocean-bound plastic in speaker enclosure; 45% post-consumer recycled plastic; 25% ITE-derived closed loop 100% sustainably sourced and recyclable; Ocean-bound plastic in speaker enclosure and system fan; Contain recycled metal Security management HP Secure Erase; HP Sure Click; HP BIOSphere Gen6; HP Sure Admin; Hood Sensor Optional Kit; HP Client Secu Manager Gen6; HP Sure Start Gen7; HP Sure Recover Gen4; HP Sure Sense Gen2; HP Sure Run Gen5 ^[19,20,21,22,23,24,25,26,31] Software included HP PC Hardware Diagnostics UEFI; HP Support Assistant; HP PC Hardware Diagnostics Windows; ZCentral Recover Sen4; HP PC Hardwa	Expansion slots	
Package weight Starting at 5.9 kg Power 450 W 90% efficient, wide-ranging, active PFC ^[10] Ecolabels TCO Certified Energy star certified ENERGY STAR® certified Management features HP Driver Packs; HP Management Integration Kit for Microsoft System Center Configuration Management Gen System Software Manager (download); HP BIOS Configuration Utility (download) ^[18] Ocean-bound plastic in speaker enclosure; 45% post-consumer recycled plastic; 25% ITE-derived closed loop plastic; Bulk packaging available; 80 Plus® Gold power supplies available; Molded paper pulp cushion inside b 100% sustainably sourced and recyclable; Ocean-bound plastic in speaker enclosure and system fan; Contain recycled metal Security management HP Secure Erase; HP Sure Click; HP BIOSphere Gen6; HP Sure Admin; Hood Sensor Optional Kit; HP Client Secur Manager Gen6; HP Sure Start Gen7; HP Sure Recover Gen4; HP Sure Sense Gen2; HP Sure Run Gen5 ^[19,20,21,22,23,24,25,26,31] Fortware included HP PC Hardware Diagnostics UEFI; HP Support Assistant; HP PC Hardware Diagnostics Windows; ZCentral Ret	Ports	
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	Security management	
DUUSI, ME IIIIAYE ASSISIAILI, ME MAIIAYEADILILY IIILEYI ALIOII KIL, PEHOFINIAILE AUVISOF 3.0 ^{113,13,11}	Software included	HP PC Hardware Diagnostics UEFI; HP Support Assistant; HP PC Hardware Diagnostics Windows; ZCentral Remote Boost; HP Image Assistant; HP Manageability Integration Kit; Performance Advisor 3.0 ^[15,16,17]
UPC number (ABA) 197497706994; (ABC) 197497706987	UPC number	

Top Recommended Displays, Accessories and Services

No Top Recommended Displays, Accessories and Services

Messaging Footnotes

[3] Third party software sold separately.

[4] 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.

Technical Specifications Footnotes

[6] Multi-core 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.

[7] Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. See http://www.intel.com/technology/turboboost/ for more information.

[10] Specific chassis required for 550 W 92% efficient, wide-ranging, active PFC power supply.

[15] HP ZCentral Remote Boost does not come preinstalled on Z Workstations but can be downloaded and run on all Z desktop and laptops without license purchase. With non-Z sender devices, purchase of perpetual individual license or perpetual floating license per simultaneously executing versions and purchase of ZCentral Remote Boost Software Support is required. RGS requires Windows, RHEL (7 or 8), UBUNTU 18.04 LTS, or HP ThinPro 7operating systems. MacOS (10.13 or newer) operating system is only supported on the receiver side. Requires network access. The software is available for download at hp.com/ZCentralRemoteBoost.

[16] HP Performance Advisor Software - HP Performance Advisor is ready and waiting to help you get the most out of your HP Workstation from day one—and every day after. Learn more or download at: https://www8.hp.com/us/en/workstations/performance-advisor.html

[17] HP Support Assistant requires Windows and Internet access.

[18] HP Manageability Integration Kit can be downloaded from http://www8.hp.com/us/en/ads/clientmanagement/overview.html

[19] HP Client Security Manager Gen7 requires Windows and is available on the select HP PCs.

[20] HP BIOSphere Gen6 features may vary depending on the platform and configurations.

[21] HP Sure Click requires Windows 10 Pro or higher or Enterprise. See https://bit.ly/2PrLT6A_SureClick for complete details.

[22] HP Sure Start Gen7 is available on select HP PCs and workstations. See product specifications for availability.

[23] HP Sure Run Gen5 is available on select HP PCs and requires Windows 10 and higher.

[24] HP Sure Recover Gen4 is available on select HP PCs and requires an open network connection. You must back up important files, data, photos, videos, etc. before using HP Sure Recover to avoid loss of data.

[25] HP Secure Erase for the methods outlined in the National Institute of Standards and Technology Special Publication 800-88 "Clear" sanitation method. HP Secure Erase does not support platforms with Intel[®] Optane[™].

[26] HP Sure Sense requires Windows 11 Pro or Enterprise and supports Microsoft Internet Explorer, Google ChromeTM, and ChromiumTM. Supported attachments include Microsoft Office (Word, Excel, PowerPoint) and PDF files in read only mode, when Microsoft Office or Adobe Acrobat are installed.

[31] HP Sure Admin requires Windows 10 or higher, HP BIOS, HP Manageability Integration Kit from http://www.hp.com/go/clientmanagement and HP Sure Admin Local Access Authenticator smartphone app from the Android or Apple store.

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