



## HP Z420 Intel® Xeon® E5 Family E5-1620V2 8 GB DDR3-SDRAM 1 TB HDD Windows 7 Professional Mini Tower Workstation Black

**Brand :** HP

**Product code:** WM592EA

**Product name :** Z420

Intel Xeon E5-1620 v2 (3.7GHz, 10MB cache, 4 cores), Convertible Minitower, Intel C602, 8GB 1600MHz DDR3 ECC, 1TB 7200 rpm SATA III, DVD SuperMulti, Ethernet, 600W, Windows 7 Professional 64-bit/Windows 8 Pro 64-bit

HP Z420. Processor frequency: 3,7 GHz, Processor family: Intel® Xeon® E5 Family, Processor model: E5-1620V2. Internal memory: 8 GB, Internal memory type: DDR3-SDRAM, Memory clock speed: 1600 MHz. Total storage capacity: 1 TB, Storage media: HDD, Optical drive type: DVD Super Multi. Operating system installed: Windows 7 Professional, Operating system architecture: 64-bit. Power supply: 600 W. Chassis type: Mini Tower. Product type: Workstation. Product colour: Black



Processor		Performance	
Processor manufacturer *	Intel	Audio system	HDA
Processor family *	Intel® Xeon® E5 Family	Product type *	Workstation
Processor model *	E5-1620V2	<b>Software</b>	
Processor cores	4	Operating system architecture	64-bit
Processor threads	8	Recovery operating system	Windows 8 Pro
Processor boost frequency	3,9 GHz	Operating system installed *	Windows 7 Professional
Processor frequency *	3,7 GHz	<b>Processor special features</b>	
Processor socket	LGA 2011 (Socket R)	Intel® Wireless Display (Intel® WiDi)	✗
Processor cache	10 MB	Intel 64	✓
Processor cache type	Smart Cache	Enhanced Intel SpeedStep Technology	✓
Bus type	QPI	Embedded options available	✗
FSB Parity	✗	Intel® InTru™ 3D Technology	✗
Processor lithography	22 nm	Intel® Insider™	✗
Processor operating modes	64-bit	Intel® Clear Video HD Technology (Intel® CVT HD)	✗
Processor series	Intel Xeon E5-1600 v2	Intel Clear Video Technology	✗
Processor codename	Ivy Bridge EP	Intel VT-x with Extended Page Tables (EPT)	✓
Thermal Design Power (TDP)	130 W	Intel TSX-NI	✗
Tcase	70 °C	Idle States	✓
PCI Express slots version	3.0	Thermal Monitoring Technologies	✓
Maximum number of PCI Express lanes	40	Intel® AES New Instructions (Intel® AES-NI)	✓
PCI Express configurations	x4, x8, x16		
Number of processors installed	1		
Maximum internal memory supported by processor	256 GB		

Processor		Processor special features	
Memory types supported by processor	DDR3-SDRAM	Intel® Secure Key	✓
Memory clock speeds supported by processor	800,1066,1333,1600,1866 MHz	Intel® OS Guard	✓
Memory bandwidth supported by processor (max)	59,7 GB/s	Intel Trusted Execution Technology	✓
ECC supported by processor	✓	Execute Disable Bit	✓
Memory		Intel FDI Technology	✗
Internal memory *	8 GB	Intel Flex Memory Access	✗
Internal memory type	DDR3-SDRAM	Intel Fast Memory Access	✗
Memory layout (slots x size)	4 x 2 GB	Intel® Smart Cache	✓
Memory slots	8x DIMM	Intel Enhanced Halt State	✓
Memory clock speed	1600 MHz	Intel Demand Based Switching	✓
ECC	✓	Intel® Clear Video Technology for Mobile Internet Devices (Intel CVT for MID)	✗
Memory channels	Quad-channel	Processor package size	52.5 x 45.0 mm
Storage		Supported instruction sets	AVX
Total storage capacity *	1 TB	Scalability	1S
Storage media *	HDD	CPU configuration (max)	1
Optical drive type *	DVD Super Multi	Intel Virtualization Technology for Directed I/O (VT-d)	✓
Total HDDs capacity	1 TB	Intel Identity Protection Technology version	0,00
Number of HDDs installed	1	Intel Secure Key Technology version	1,00
HDD capacity	1 TB	Intel Virtualization Technology (VT-x)	✓
HDD speed	7200 RPM	Intel TSX-NI version	0,00
HDD size	3.5"	Intel Dual Display Capable Technology	✗
Card reader integrated	✓	Intel Rapid Storage Technology	✗
Graphics		Processor ARK ID	75779
On-board graphics card *	✗	Intel® Turbo Boost Technology	2.0
Discrete graphics card model *	Not available	Intel® Hyper Threading Technology (Intel® HT Technology)	✓
On-board graphics card model *	Not available	Intel® Quick Sync Video Technology	✗
Network		Intel® My WiFi Technology (Intel® MWT)	✗
Ethernet LAN *	✓	Intel® Identity Protection Technology (Intel® IPT)	✗
Wi-Fi *	✗	Intel® Anti-Theft Technology (Intel® AT)	✗
Ports & interfaces		Conflict-Free processor	✗
USB 2.0 ports quantity *	5	Power	
USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity *	4	Power supply *	600 W
PS/2 ports quantity	2	Power supply input voltage	100 - 240 V
Firewire (IEEE 1394) ports	2	Power supply input frequency	50 - 60 Hz
Ethernet LAN (RJ-45) ports	1	Weight & dimensions	
Microphone in	✓	Width *	177,8 mm
Headphone outputs	1	Depth *	445,2 mm
Line-out	✓	Height *	447,6 mm
Line-in	✓	Weight *	12,5 kg
Expansion slots		Packaging content	
PCI Express x4 (Gen 2.x) slots	1	Mouse included	✗
PCI Express x8 (Gen 3.x) slots	1	Keyboard included	✓
PCI Express x16 (Gen 3.x) slots	2	Display	
PCI slots	1	Display included *	✗
Design		Other features	
Chassis type *	Mini Tower	Optical drives quantity	1
Water cooling system	✗		
Number of 3.5" bays	3		
Number of 5.25" bays	3		
Product colour *	Black		
Country of origin	China		

**Performance**

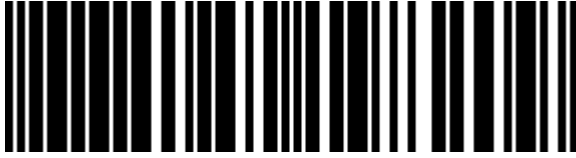
Motherboard chipset                      Intel® C602



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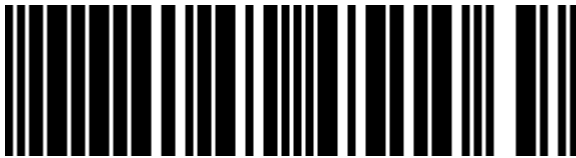
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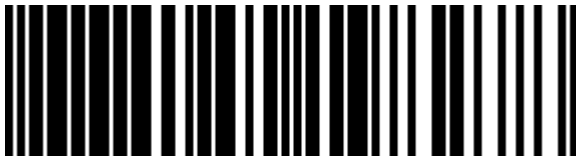
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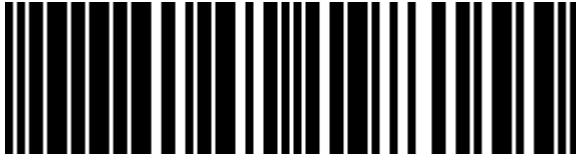
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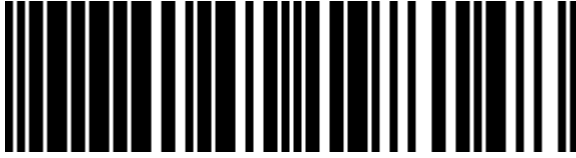
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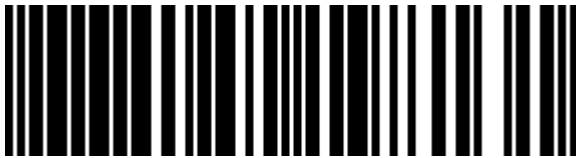
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