



HP Z230 Intel® Core™ i7 i7-4770 4 GB DDR3-SDRAM 500 GB HDD Windows 7 Professional Tower Workstation Black

Brand : HP

Product code: D1P34AV

Product name : Z230

HP Z230 Base Model Tower Workstation

HP Z230. Processor frequency: 3.4 GHz, Processor family: Intel® Core™ i7, Processor: i7-4770. Internal memory: 4 GB, Internal memory type: DDR3-SDRAM, Memory clock speed: 1600 MHz. Total storage capacity: 500 GB, Storage media: HDD, Optical drive: DVD Super Multi. On-board graphics card model: Intel® HD Graphics 4600. Operating system installed: Windows 7 Professional, Operating system architecture: 64-bit. Power supply: 400 W. Form factor: Tower. Product type: Workstation



Processor		Software	
Processor manufacturer *	Intel	Recovery operating system	Windows 8 Pro
Processor family *	Intel® Core™ i7	Processor special features	
Processor generation	4th gen Intel® Core™ i7	Intel® Small Business Advantage (Intel® SBA)	✗
Processor *	i7-4770	Intel Wireless Display (WiDi) Technology	✓
Processor number of cores	4	Intel Matrix Storage Technology	✗
Processor threads	8	Intel HD Audio Technology	✗
Processor boost frequency	3.9 GHz	Intel Active Management Technology	✗
Processor frequency *	3.4 GHz	Intel 64	✓
Processor socket	LGA 1150 (Socket H3)	Enhanced Intel SpeedStep Technology	✓
Processor cache	8 MB	Embedded options available	✗
Processor cache type	Smart Cache	Intel® InTru™ 3D Technology	✓
System bus data transfer rate	5 GT/s	Intel® Insider™	✓
Bus type	DMI2	Intel Clear Video HD Technology	✓
FSB Parity	✗	Intel Clear Video Technology	✗
Processor lithography	22 nm	Intel VT-x with Extended Page Tables (EPT)	✓
Processor operating modes	64-bit	Intel TSX-NI	✗
Processor series	Intel Core i7-4700 Desktop series	Idle States	✓
Processor codename	Haswell	Thermal Monitoring Technologies	✓
Thermal Design Power (TDP)	84 W	Intel Stable Image Platform Program (SIPP)	✓
Tcase	72.72 °C	Intel AES New Instructions	✓
PCI Express slots version	3.0	Intel® Secure Key	✓
Maximum number of PCI Express lanes	16	Intel® OS Guard	✓
PCI Express configurations	1x16, 2x8, 1x8+2x4	Intel Trusted Execution Technology	✓
Number of processors installed	1		
Number of QPI links	1		
Stepping	C0		
Maximum internal memory supported by processor	32 GB		

Processor		Processor special features			
Memory types supported by processor	DDR3-SDRAM	Execute Disable Bit	✓		
Memory clock speeds supported by processor	1333,1600 MHz	Intel FDI Technology	✓		
Memory bandwidth supported by processor (max)	25.6 GB/s	Intel Flex Memory Access	✗		
ECC supported by processor	✗	Intel Fast Memory Access	✗		
Memory voltage supported by processor	1.5 V	Intel® Smart Cache	✓		
Memory		Intel Enhanced Halt State	✓		
		Intel Demand Based Switching	✗		
		Intel Clear Video Technology for MID	✗		
		Processor package size	37.5 x 37.5 mm		
		Supported instruction sets	AVX 2.0, SSE4.1, SSE4.2		
		Processor code	SR149		
		Scalability	1S		
		CPU configuration (max)	1		
Internal memory *	4 GB	Graphics & IMC lithography	22 nm		
Memory, maximum *	32 GB	Thermal solution specification	PCG 2013D		
Internal memory type	DDR3-SDRAM	Intel Virtualization Technology for Directed I/O (VT-d)	✓		
Memory layout (slots x size)	1 x 4 GB	Intel Identity Protection Technology version	1.00		
Memory slots	4x DIMM	Intel Stable Image Platform Program (SIPP) version	1.00		
Memory clock speed	1600 MHz	Intel Secure Key Technology version	1.00		
Memory channels	Dual-channel	Intel Virtualization Technology (VT-x)	✓		
Storage		Intel Small Business Advantage (SBA) version	1.00		
		Intel TSX-NI version	0.00		
		Intel Dual Display Capable Technology	✗		
		Intel Rapid Storage Technology	✗		
		Processor ARK ID	75122		
		Intel® Smart Response Technology	✗		
		Intel® Rapid Start Technology	✗		
		Intel Turbo Boost Technology	2.0		
Total storage capacity *	500 GB	Intel Smart Connect Technology	✗		
Storage media *	HDD	Intel Hyper-Threading Technology	✓		
Optical drive *	DVD Super Multi	Intel® Quick Sync Video Technology	✓		
Number of storage drives installed	1	Intel My WiFi Technology	✓		
Total HDDs capacity	500 GB	Intel Identity Protection Technology	✓		
Hard drive capacity	500 GB	Intel Anti-Theft Technology	✓		
Hard drive interface	SATA	Conflict-Free processor	✓		
Hard drive rotational speed	7200 RPM	Power			
Card reader integrated	✓				
Graphics					
				On-board graphics card *	✓
Discrete graphics card memory	1 GB				
Number of discrete graphics cards	1				
On-board graphics card family	Intel® HD Graphics				
On-board graphics card model *	Intel® HD Graphics 4600				
On-board graphics card memory	1.7 GB				
On-board graphics card base frequency	350 MHz				
On-board graphics card dynamic frequency (max)	1200 MHz				
Maximum on-board graphics card memory	2 GB				
Number of displays supported (on-board graphics)	3				
On-board graphics card DirectX version	11.2/12				
On-board graphics card OpenGL version	4.3				
On-board graphics card ID	0x412				
Network				Operational conditions	
		Operating temperature (T-T)		10 - 35 °C	
		Storage temperature (T-T)	-20 - 60 °C		
Ethernet LAN connection *	✓	Operating relative humidity (H-H)	10 - 90%		
Ethernet LAN data rates	10,100,1000 Mbit/s	Storage humidity	5 - 90%		
Cabling technology	10/100/1000Base-T(X)	Certificates	RoHS		
Ports & interfaces					
	Sustainability				
	Sustainability certificates	EPEAT Silver, ENERGY STAR			
	Weight & dimensions				
	Width *	170 mm			
	Depth *	442 mm			

Ports & interfaces		Weight & dimensions	
Line-in	✓	Height *	399 mm
DC-in jack	✓	Weight *	8.8 kg
Design		Packaging content	
Form factor *	Tower	Mouse included	✓
Placement supported	Vertical	Keyboard included	✓
Product colour *	Black	Display	
Country of origin	China	Display included *	✗
Performance		Other features	
Audio system	HD	Optical drives quantity	1
Product type *	Workstation	LightScribe	✗
Software			
Operating system installed *	Windows 7 Professional		
Operating system architecture	64-bit		

Catalog Object Cloud



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