HP Intel Xeon E5-1680 v3 processor 3.2 GHz 20 MB Smart Cache

Brand : HP **Product code:** 790697-001

Product name : Intel Xeon E5-1680 v3

Intel Xeon E5-1680 v3, 20M Cache, 3.2 GHz, 0 GT/s QPI

HP Intel Xeon E5-1680 v3 processor 3.2 GHz 20 MB Smart Cache:

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HP Intel Xeon E5-1680 v3. Processor family: Intel Xeon E5 v3, Processor socket: LGA 2011-v3, Processor lithography: 22 nm. Memory channels: Quad-channel, Maximum internal memory supported by processor: 768 GB, Memory types supported by processor: DDR4-SDRAM. Market segment: Server, Supported instruction sets: AVX 2.0, Scalability: 1S. Compatibility: Z440

Processor	
Processor model *	E5-1680V3
Processor base frequency *	3.2 GHz
Processor family *	Intel Xeon E5 v3
Processor cores *	8
Processor socket *	LGA 2011-v3
Component for	Server/workstation
Processor lithography *	22 nm
Processor series	Intel Xeon E5-1600 v3
Processor threads	16
System bus rate	0 GT/s
Processor operating modes *	64-bit
Processor boost frequency	3.8 GHz
Processor cache	20 MB
Processor cache type	Smart Cache
Thermal Design Power (TDP)	140 W
VID Voltage Range	0.65 - 1.3 V
Stepping	R2
Bus type	QPI
Memory bandwidth supported by processor (max)	68 GB/s

Memory	
Maximum internal memory supported by processor	768 GB
Memory types supported by processor	DDR4-SDRAM
Memory clock speeds supported by processor	1333,1600,1866,2133 MHz
Memory channels *	Quad-channel
ECC	✔

Graphics	
On-board graphics card *	✘

Features	
Execute Disable Bit	✔
Idle States	✔
Thermal Monitoring Technologies	✔
Market segment	Server
Maximum number of PCI Express lanes	40
PCI Express slots version	3.0

Features	
Supported instruction sets	AVX 2.0
Scalability	1S
Physical Address Extension (PAE)	✔
CPU configuration (max)	1
Embedded options available	✘
Physical Address Extension (PAE)	46 bit

Processor special features	
Intel® Hyper Threading Technology (Intel® HT Technology)	✔
Intel® Identity Protection Technology (Intel® IPT)	✔
Intel® Turbo Boost Technology	2.0
Intel Flex Memory Access	✘
Intel® AES New Instructions (Intel® AES-NI)	✔
Enhanced Intel SpeedStep Technology	✔
Intel Trusted Execution Technology	✔
Intel VT-x with Extended Page Tables (EPT)	✔
Intel Demand Based Switching	✔
Intel® Secure Key	✔
Intel TSX-NI	✘
Intel® OS Guard	✔
Intel 64	✔
Intel Virtualization Technology (VT-x)	✔
Intel Virtualization Technology for Directed I/O (VT-d)	✔
Conflict-Free processor	✔
Intel® vPro™ Platform Eligibility	✔

Operational conditions	
Tcase	66.26 °C

Other features	
Compatibility	Z440

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