


ARK Compare Intel® Products	
Intel® Xeon® Processor E5-2680 v3 (30M Cache, 2.50 GHz)	
Essentials	
Product Collection	Intel® Xeon® Processor E5 v3 Family
Code Name	Products formerly Haswell
Vertical Segment	Server
Processor Number	E5-2680V3
Off Roadmap	No
Publication Date	Monday, September 8, 2014
Product Images	View now
Status	Launched
Launch Date	Q3'14
Lithography	22 nm
Use Conditions	Server/Enterprise
Advocated for New Designs	No
Recommended Customer Price	\$1745.00
CPU Specifications	
# of Cores	12
# of Threads	24
Processor Base Frequency	2.50 GHz
Max Turbo Frequency	3.30 GHz
Cache	30 MB Intel® Smart Cache
Bus Speed	9.6 GT/s
# of QPI Links	2
Intel® Turbo Boost Technology 2.0 Frequency‡	3.30 GHz
TDP	120 W
VID Voltage Range	0.65V-1.30V
Supplemental Information	

Embedded Options Available	Yes
Datasheet	View now
Product Brief	View now
Additional Information	View now
Memory Specifications	
Max Memory Size (dependent on memory type)	768 GB
Memory Types	DDR4 1600/1866/2133
Max # of Memory Channels	4
Max Memory Bandwidth	68 GB/s
Physical Address Extensions	46-bit
ECC Memory Supported ‡	Yes
Expansion Options	
Scalability	2S
PCI Express Revision	3
PCI Express Configurations ‡	x4, x8, x16
Max # of PCI Express Lanes	40
Package Specifications	
Sockets Supported	FCLGA2011-3
Max CPU Configuration	2
TCASE	84.5°C
Package Size	52.5mm x 45mm
Low Halogen Options Available	No
Advanced Technologies	
Intel® Turbo Boost Technology ‡	2
Intel vPro® Platform Eligibility ‡	Yes
Intel® Hyper-Threading Technology ‡	Yes
Intel® Virtualization Technology (VT-x) ‡	Yes
Intel® Virtualization Technology for Directed I/O (VT-d) ‡	Yes
Intel® VT-x with Extended Page Tables (EPT) ‡	Yes

Intel® Transactional Synchronization Extensions	No
Intel® 64 ‡	Yes
Instruction Set	64-bit
Instruction Set Extensions	Intel® AVX2
Idle States	Yes
Enhanced Intel SpeedStep® Technology	Yes
Intel® Demand Based Switching	Yes
Thermal Monitoring Technologies	Yes
Intel® Flex Memory Access	No
Intel® Identity Protection Technology ‡	No
Security & Reliability	
Intel® AES New Instructions	Yes
Secure Key	Yes
Intel® OS Guard	Yes
Intel® Trusted Execution Technology ‡	Yes
Execute Disable Bit ‡	Yes