

## Intel Xeon X5680 processor 3.33 GHz 12 MB Smart Cache

**Brand :** Intel

**Product family:** Xeon

**Product code:**  
AT80614005124AA

**Product name :** X5680

Intel® Xeon® Processor X5680  
(12M Cache, 3.33 GHz, 6.40 GT/s Intel® QPI)



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Designed for industry-leading performance and maximum energy efficiency, these versatile 1-way and 2-way 64-bit multi-core servers and workstations are ideally suited to a wide range of infrastructure, cloud, high-density, and high performance computing (HPC) applications.

Intel Xeon X5680. Processor family: Intel® Xeon® 5000 Sequence, Processor socket: LGA 1366 (Socket B), Processor lithography: 32 nm. Memory channels: Triple-channel, Maximum internal memory supported by processor: 288 GB, Memory types supported by processor: DDR3-SDRAM. Market segment: Server, Supported instruction sets: SSE4.2, Bandwidth: 32000 MB/s. Package type: Retail box. Processor package size: 42.5mm x 45mm

Processor		Features	
Processor manufacturer *	Intel	Commodity Classification	
Processor model *	X5680	Automated Tracking System (CCATS)	G077159
Processor base frequency *	3.33 GHz	<b>Processor special features</b>	
Processor family *	Intel® Xeon® 5000 Sequence	Intel® Hyper Threading Technology (Intel® HT Technology)	✓
Processor cores *	6	Intel® Turbo Boost Technology	1.0
Processor socket *	LGA 1366 (Socket B)	Intel® AES New Instructions (Intel® AES-NI)	✓
Component for	Server/workstation	Enhanced Intel SpeedStep Technology	✓
Processor lithography *	32 nm	Intel Trusted Execution Technology	✓
Processor series	Intel Xeon 5600 Series	Intel Enhanced Halt State	✓
Processor threads	12	Intel VT-x with Extended Page Tables (EPT)	✓
System bus rate	6.4 GT/s	Intel Demand Based Switching	✓
Processor operating modes *	64-bit	Intel 64	✓
Processor boost frequency	3.6 GHz	Intel Virtualization Technology (VT-x)	✓
Processor cache	12 MB	Intel Virtualization Technology for Directed I/O (VT-d)	✓
Processor cache type	Smart Cache	<b>Operational conditions</b>	
Thermal Design Power (TDP)	130 W	Maximum operating temperature	78.5 °C
Box *	✗	Tcase	78.5 °C
Cooler included *	✗	<b>Technical details</b>	
VID Voltage Range	0.75 - 1.35 V	Born on date	Q1'10
Stepping	B1	Bus bandwidth	6.4
Bus type	QPI	Bus type units	GT/s
CPU multiplier (bus/core ratio)	25	Launch date	Q1'10
Number of QPI links	2	Processor cache	12288 KB
Memory bandwidth supported by processor (max)	32 GB/s	Processor core voltage	0.750-1.350 V
Processor codename	Westmere EP	Product name	Intel Xeon X5680 (12M Cache, 3.33 GHz, 6.40 GT/s Intel QPI)
Processor code	SLBV5	Product type	Processor
Processor ARK ID	47916	Status	Discontinued
<b>Memory</b>		Maximum memory	288 GB
Maximum internal memory supported by processor	288 GB	Processor brand name	Intel Xeon
Memory types supported by processor	DDR3-SDRAM	Supported memory types	DDR3-SDRAM
Memory channels *	Triple-channel	Last change	63903513
ECC	✓		
<b>Graphics</b>			
On-board graphics card *	✗		

Features		Technical details	
Execute Disable Bit	✓	Product family	Intel Xeon Processor 5000 Sequence
Idle States	✓	Bus speed	6.4 GT/s
Thermal Monitoring Technologies	✗	<b>Logistics data</b>	
Market segment	Server	Harmonized System (HS) code	8542310001
Supported instruction sets	SSE4.2	<b>Packaging data</b>	
Bandwidth	32000 MB/s	Package type	Retail box
CPU configuration (max)	2	<b>Weight &amp; dimensions</b>	
Embedded options available	✗	Processor package size	42.5mm x 45mm
Physical Address Extension (PAE)	40 bit	<b>Other features</b>	
Export Control Classification Number (ECCN)	5A992C	Maximum internal memory	288 GB
		Maximum internal memory	294912 MB
		Cache memory	12 MB

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