

Intel Core i7-990X processor 3.46 GHz 12 MB Smart Cache

Brand : Intel

Product family: Core

Product code:
AT80613005931AA

Product name : i7-990X

Intel® Core™ i7-990X Processor Extreme Edition
(12M Cache, 3.46 GHz, 6.40 GT/s Intel® QPI)

Intel Core i7-990X. Processor family: Intel® Core™ i7 Extreme Edition, Processor socket: LGA 1366 (Socket B), Processor lithography: 32 nm. Memory channels: Triple-channel, Maximum internal memory supported by processor: 24 GB, Memory types supported by processor: DDR3-SDRAM. Market segment: Desktop, Processing Die size: 239 mm², Supported instruction sets: SSE4.2. Package type: Retail box. Processor package size: 42.5mm x 45mm



Processor		Features	
Processor manufacturer *	Intel	Embedded options available	✗
Processor generation	Intel® Core™ i7	Physical Address Extension (PAE)	36 bit
Processor model *	i7-990X	Export Control Classification Number (ECCN)	5A992C
Processor base frequency *	3.46 GHz	Commodity Classification Automated Tracking System (CCATS)	G077159
Processor family *	Intel® Core™ i7 Extreme Edition	Processor special features	
Processor cores *	6	Intel® Hyper Threading Technology (Intel® HT Technology)	✓
Processor socket *	LGA 1366 (Socket B)	Intel® Turbo Boost Technology	1.0
Component for	PC	Intel® Smart Cache	✓
Processor lithography *	32 nm	Intel® AES New Instructions (Intel® AES-NI)	✓
Processor series	Intel Core i7-900 Desktop Extreme Edition Series	Enhanced Intel SpeedStep Technology	✓
Processor threads	12	Intel Trusted Execution Technology	✗
System bus rate	6.4 GT/s	Intel Enhanced Halt State	✓
Processor operating modes *	64-bit	Intel VT-x with Extended Page Tables (EPT)	✓
Processor boost frequency	3.73 GHz	Intel Demand Based Switching	✗
Processor cache	12 MB	Intel 64	✓
Processor cache type	Smart Cache	Intel Virtualization Technology (VT-x)	✓
Processor front side bus	1066 MHz	Operational conditions	
Thermal Design Power (TDP)	130 W	Tcase	67.9 °C
Box *	✗	Technical details	
Cooler included *	✗	Born on date	Q1'11
VID Voltage Range	0.8 - 1.375 V	Bus bandwidth	6.4
Generation	9th Generation	Bus type units	GT/s
Compatible chipsets	Intel® X58 Express	Launch date	Q1'11
Stepping	B1	Processor cache	12288 KB
Bus type	QPI	Processor core voltage	0.800-1.375 V
CPU multiplier (bus/core ratio)	26		
Number of QPI links	1		
Memory bandwidth supported by processor (max)	25.6 GB/s		
Processor codename	Gulftown		
Processor code	SLBVZ		
Processor ARK ID	52585		

Memory		Technical details	
Maximum internal memory supported by processor	24 GB	Product name	Intel Core i7-990X Extreme Edition (12M Cache, 3.46 GHz, 6.40 GT/s Intel QPI)
Memory types supported by processor	DDR3-SDRAM	Product type	Processor
Memory clock speeds supported by processor	1066 MHz	Status	Discontinued
Memory channels *	Triple-channel	Maximum memory	24 GB
ECC	✗	Processor brand name	Intel Core i7 Extreme Edition Intel Core i7 Processor Extreme Edition
Graphics		Supported memory types	DDR3-SDRAM
On-board graphics card *	✗	Last change	63903513
Features		Product family	Previous Generation Intel Core i7 Extreme Processor
Execute Disable Bit	✓	Bus speed	6.4 GT/s
Idle States	✓	Logistics data	
Thermal Monitoring Technologies	✗	Harmonized System (HS) code	8542310001
Market segment	Desktop	Packaging data	
Processing Die size	239 mm ²	Package type	Retail box
Supported instruction sets	SSE4.2	Weight & dimensions	
Physical Address Extension (PAE)	✓	Processor package size	42.5mm x 45mm
CPU configuration (max)	1	Other features	
		Intel® Virtualization Technology (Intel® VT)	VT-x
		Maximum internal memory	24 GB
		Maximum internal memory	24576 MB
		Cache memory	12 MB

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