

Intel Core i7-4770 processor 3.4 GHz 8 MB Smart Cache

Brand : Intel

Product family: Core

Product code:
CM8064601464303

Product name : i7-4770



Intel® Core™ i7-4770 Processor
(8M Cache, up to 3.90 GHz)

Intel Core i7-4770. Processor family: Intel® Core™ i7, Processor socket: LGA 1150 (Socket H3), Processor lithography: 22 nm. Memory channels: Dual-channel, Maximum internal memory supported by processor: 32 GB, Memory types supported by processor: DDR3-SDRAM, DDR3L-SDRAM. On-board graphics card model: Intel® HD Graphics 4600, Maximum on-board graphics card memory: 2 GB, On-board graphics card outputs supported: Embedded DisplayPort (eDP), DisplayPort, HDMI, DVI, VGA (D-Sub). Market segment: Desktop, PCI Express configurations: 1x16, 2x8, 1x8+2x4, Supported instruction sets: SSE4.1, SSE4.2, AVX 2.0. Intel® Turbo Boost Technology 2.0 frequency: 3.9 GHz



Processor		Processor special features	
Processor manufacturer *	Intel	Intel® Anti-Theft Technology (Intel® AT)	✓
Processor generation	4th gen Intel® Core™ i7	Intel® Hyper Threading Technology (Intel® HT Technology)	✓
Processor model *	i7-4770	Intel® Identity Protection Technology (Intel® IPT)	✓
Processor base frequency *	3.4 GHz	Intel® My WiFi Technology (Intel® MWT)	✓
Processor family *	Intel® Core™ i7	Intel® Turbo Boost Technology	2.0
Processor cores *	4	Intel® Quick Sync Video Technology	✓
Processor socket *	LGA 1150 (Socket H3)	Intel® InTru™ 3D Technology	✓
Component for	PC	Intel® Wireless Display (Intel® WiDi)	✓
Processor lithography *	22 nm	Intel FDI Technology	✓
Processor series	Intel Core i7-4700 Desktop series	Intel® Clear Video HD Technology (Intel® CVT HD)	✓
Processor threads	8	Intel® Insider™	✓
System bus rate	5 GT/s	Intel® Smart Cache	✓
Processor operating modes *	64-bit	Intel® AES New Instructions (Intel® AES-NI)	✓
Processor boost frequency	3.9 GHz	Enhanced Intel SpeedStep Technology	✓
Processor cache	8 MB	Intel Trusted Execution Technology	✓
Processor cache type	Smart Cache	Intel® Turbo Boost Technology 2.0 frequency	3.9 GHz
Thermal Design Power (TDP)	84 W	Intel® Transactional Synchronization Extensions	✗
Box *	✗	Intel Enhanced Halt State	✓
Cooler included *	✗	Intel VT-x with Extended Page Tables (EPT)	✓
Generation	4th Generation	Intel® Secure Key	✓
Stepping	C0	Intel TSX-NI	✗
Bus type	QPI	Intel Stable Image Platform Program (SIPP)	✓
Number of QPI links	1	Intel® OS Guard	✓
Memory bandwidth supported by processor (max)	25.6 GB/s	Intel 64	✓
Processor codename	Haswell	Intel Identity Protection Technology version	1.00
Processor code	SR149	Intel Secure Key Technology version	1.00
Processor ARK ID	75122	Intel Small Business Advantage (SBA) version	1.00
Memory		Intel Stable Image Platform Program (SIPP) version	1.00
Maximum internal memory supported by processor	32 GB		
Memory types supported by processor	DDR3-SDRAM, DDR3L-SDRAM		
Memory clock speeds supported by processor	1333,1600 MHz		
Memory channels *	Dual-channel		
ECC	✗		
Graphics			
On-board graphics card *	✓		
On-board graphics card model *	Intel® HD Graphics 4600		

Graphics		Processor special features	
Maximum on-board graphics card memory	2 GB	Intel Virtualization Technology (VT-x)	✓
On-board graphics card outputs supported	Embedded DisplayPort (eDP), DisplayPort, HDMI, DVI, VGA (D-Sub)	Intel Virtualization Technology for Directed I/O (VT-d)	✓
On-board graphics card base frequency	350 MHz	Intel TSX-NI version	0.00
On-board graphics card dynamic frequency (max)	1200 MHz	Conflict-Free processor	✓
Number of displays supported (on-board graphics)	3	Intel® vPro™ Platform Eligibility	✓
On-board graphics card DirectX version	11.2/12	Operational conditions	
On-board graphics card OpenGL version	4.3	Tcase	72.72 °C
On-board graphics card maximum resolution (DisplayPort)	3840 x 2160 pixels	Technical details	
On-board graphics card maximum resolution (eDP - Integrated Flat Panel)	3840 x 2160 pixels	Bus bandwidth	5
On-board graphics card maximum resolution (HDMI)	4096 x 2304 pixels	Bus type units	GT/s
On-board graphics card maximum resolution (VGA)	1920 x 1200 pixels	Launch date	Q2'13
On-board graphics card refresh rate at maximum resolution (DisplayPort)	60 Hz	Maximum resolution & refresh rate (DisplayPort)	3840x2160@60Hz
On-board graphics card refresh rate at maximum resolution (eDP - Integrated Flat Panel)	60 Hz	Maximum resolution & refresh rate (HDMI)	4096x2304@24Hz
On-board graphics card refresh rate at maximum resolution (HDMI)	24 Hz	Maximum resolution & refresh rate (Integrated Flat Panel)	3840x2160@60Hz
On-board graphics card refresh rate at maximum resolution (VGA)	60 Hz	Maximum resolution & refresh rate (VGA)	1920x1200@60Hz
On-board graphics card ID	0x412	Number of graphics cores	20
Features		Processor cache	8192 KB
Execute Disable Bit	✓	Product type	Processor
Idle States	✓	Status	Discontinued
Thermal Monitoring Technologies	✓	Maximum memory	32 GB
Market segment	Desktop	Processor brand name	Intel Core i7 vPro Intel Core i7 vPro Processor
Maximum number of PCI Express lanes	16	Supported memory types	DDR3-SDRAM, DDR3L-SDRAM
PCI Express slots version	3.0	Last change	63903513
PCI Express configurations	1x16, 2x8, 1x8+2x4	Product family	4th Generation Intel Core i7 Processors
Supported instruction sets	SSE4.1, SSE4.2, AVX 2.0	Bus speed	5 GT/s
Scalability	1S	Maximum graphics card memory	2 GB
CPU configuration (max)	1	Processor ID	0x412
Embedded options available	✗	Logistics data	
Graphics & IMC lithography	22 nm	Harmonized System (HS) code	8542310001
Thermal solution specification	PCG 2013D	Packaging data	
Export Control Classification Number (ECCN)	5A992C	Package type	Retail box
Commodity Classification Automated Tracking System (CCATS)	G077159	Weight & dimensions	
		Processor package size	37.5 x 37.5 mm
		Other features	
		Intel® Virtualization Technology (Intel® VT)	VT-d, VT-x
		Maximum internal memory	32 GB
		Maximum internal memory	32768 MB
		Graphics output	eDP/DP/HDMI/DVI/VGA
		Video decoding	✓

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