

Intel Core i7-4770K processor 3.5 GHz 8 MB Smart Cache

Brand : Intel

Product family: Core

Product code:
CM8064601464206

Product name : i7-4770K



Intel® Core™ i7-4770K Processor

(8M Cache, up to 3.90 GHz)

Intel Core i7-4770K. 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® Hyper Threading Technology (Intel® HT Technology)	✓
Processor generation	4th gen Intel® Core™ i7	Intel® Identity Protection Technology (Intel® IPT)	✓
Processor model *	i7-4770K	Intel® My WiFi Technology (Intel® MWT)	✓
Processor base frequency *	3.5 GHz	Intel® Turbo Boost Technology	2.0
Processor family *	Intel® Core™ i7	Intel® Quick Sync Video Technology	✓
Processor cores *	4	Intel® InTru™ 3D Technology	✓
Processor socket *	LGA 1150 (Socket H3)	Intel® Wireless Display (Intel® WiDi)	✓
Component for	PC	Intel FDI Technology	✓
Processor lithography *	22 nm	Intel® Clear Video HD Technology (Intel® CVT HD)	✓
Processor series	Intel Core i7-4700 Desktop series	Intel Dual Display Capable Technology	✓
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	SR147	Intel Secure Key Technology version	1.00
Processor ARK ID	75123	Intel Small Business Advantage (SBA) version	1.00
Memory		Intel Stable Image Platform Program (SIPP) version	0.00
Maximum internal memory supported by processor	32 GB	Intel Virtualization Technology (VT-x)	✓
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 for Directed I/O (VT-d)	✗
On-board graphics card outputs supported	Embedded DisplayPort (eDP), DisplayPort, HDMI, DVI, VGA (D-Sub)	Intel TSX-NI version	0.00
On-board graphics card base frequency	350 MHz	Conflict-Free processor	✓
On-board graphics card dynamic frequency (max)	1250 MHz	Intel® vPro™ Platform Eligibility	✗
Number of displays supported (on-board graphics)	3	Operational conditions	
On-board graphics card DirectX version	11.2/12	Tcase	72.72 °C
On-board graphics card OpenGL version	4.3	Technical details	
On-board graphics card maximum resolution (DisplayPort)	3840 x 2160 pixels	Bus bandwidth	5
On-board graphics card maximum resolution (eDP - Integrated Flat Panel)	3840 x 2160 pixels	Bus type units	GT/s
On-board graphics card maximum resolution (HDMI)	4096 x 2304 pixels	Launch date	Q2'13
On-board graphics card maximum resolution (VGA)	1920 x 1200 pixels	Maximum resolution & refresh rate (DisplayPort)	3840x2160@60Hz
On-board graphics card refresh rate at maximum resolution (DisplayPort)	60 Hz	Maximum resolution & refresh rate (HDMI)	4096x2304@24Hz
On-board graphics card refresh rate at maximum resolution (eDP - Integrated Flat Panel)	60 Hz	Maximum resolution & refresh rate (Integrated Flat Panel)	3840x2160@60Hz
On-board graphics card refresh rate at maximum resolution (HDMI)	24 Hz	Maximum resolution & refresh rate (VGA)	1920x1200@60Hz
On-board graphics card refresh rate at maximum resolution (VGA)	60 Hz	Number of graphics cores	20
On-board graphics card ID	0x412	Processor cache	8192 KB
Features		Product type	Processor
Execute Disable Bit	✓	Status	Discontinued
Idle States	✓	Maximum memory	32 GB
Thermal Monitoring Technologies	✓	Processor brand name	Intel Core i7 Intel Core i7 Processor
Market segment	Desktop	Supported memory types	DDR3-SDRAM, DDR3L-SDRAM
Maximum number of PCI Express lanes	16	Last change	63903513
PCI Express slots version	3.0	Product family	4th Generation Intel Core i7 Processors
PCI Express configurations	1x16, 2x8, 1x8+2x4	Bus speed	5 GT/s
Supported instruction sets	SSE4.1, SSE4.2, AVX 2.0	Maximum graphics card memory	2 GB
Scalability	1S	Processor ID	0x412
CPU configuration (max)	1	Logistics data	
Embedded options available	✗	Harmonized System (HS) code	8542310001
Graphics & IMC lithography	22 nm	Packaging data	
Thermal solution specification	PCG 2013D	Package width	70 mm
Export Control Classification Number (ECCN)	5A992C	Package depth	116 mm
Commodity Classification Automated Tracking System (CCATS)	G077159	Package height	101 mm
Processor special features		Package weight	373 g
Intel® Anti-Theft Technology (Intel® AT)	✓	Package type	Retail box
		Weight & dimensions	
		Processor package size	37.5 x 37.5 mm
		Other features	
		Intel® Virtualization Technology (Intel® VT)	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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