

L1 Cache L1 data L1 Instruction

Size: 4x32kB 4x32kB
 Associativity: 8-way set associative =

10/12/2016

Intel® Core™ i7-3770 Processor (8M Cache, up to 3.90 GHz) Specifications
 block
 Line size: 64 Bytes 64 Bytes
 Comments: Direct-mapped =

Mine
 Stepping: 9
 Revision: E1/L1



Intel® Core™ i7-3770 Processor
 (8M Cache, up to 3.90 GHz)

Specifications		Transistor count
- Essentials		1.4B
Processor Number	Ivy Bridge	
Status	Launched	
Launch Date	Q2'12	
Lithography	22 nm	
Recommended Customer Price	\$277.00 - \$305.00	
- Performance		
# of Cores	4	
# of Threads	8	
Processor Base Frequency	3.40 GHz	
Max Turbo Frequency	3.90 GHz	
Cache	8 MB SmartCache	
Bus Speed	5 GT/s DMI	
TDP	77 W	
family	6	
Ext. family	6	
Supplemental Information		
Embedded Options Available	<input checked="" type="checkbox"/> Yes	
Conflict Free	Yes	
Datasheet	Link	
Model	A	
Ext. Model	3A	
- Memory Specifications		
Max Memory Size (dependent on memory type)	32 GB	
Memory Types	DDR3 1333/1600	
Max # of Memory Channels	2	
Max Memory Bandwidth	25.6 GB/s	
ECC Memory Supported †	<input checked="" type="checkbox"/> No	
- Graphics Specifications		
Processor Graphics †	Intel® HD Graphics 4000	
Graphics Base Frequency	650.00 MHz	
Graphics Max Dynamic Frequency	1.15 GHz	
Intel® Quick Sync Video	<input checked="" type="checkbox"/> Yes	
Intel® InTru™ 3D Technology	Yes	
Intel® Wireless Display	<input checked="" type="checkbox"/> Yes	

dynamically allocate the shared cache to each processor, based on workload

3 way set associative non inclusive, direct-mapped
 L2 Cache = 1MB, 0.25MB/core
 L3 cache = 8MB, 2MB/core
 16 way set associative inclusive, shared between all cores

and supports both, built-in memory controller

	Clock (GHz)	CTP	GFLOP
Base	3.4	136,000	103.8
Single Core Max Turbo	3.9	156,000	125
GPU only	1.15	75,133	147.2

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Intel® Flexible Display Interface (Intel® FDI)	Yes
Intel® Clear Video HD Technology	Yes
# of Displays Supported †	3
Device ID	0x162
- Expansion Options	
PCI Express Revision	3.0
PCI Express Configurations †	up to 1x16, 2x8, 1x8 & 2x4 <i>i.e 16 lanes in total</i>
- Package Specifications	
Sockets Supported	<i>chipset</i> FCLGA1155 : <i>Socket type</i>
Max CPU Configuration	1
Thermal Solution Specification	2011D
T _{CASE}	67.4°C
T _{JUNCTION}	105°C
Package Size	37.5mm x 37.5mm
Low Halogen Options Available	See MDDS
- Advanced Technologies	
Intel® Turbo Boost Technology †	2.0
Intel® vPro Technology †	<input checked="" type="checkbox"/> Yes
Intel® Hyper-Threading Technology †	<input checked="" type="checkbox"/> Yes
Intel® Virtualization Technology (VT-x) †	Yes
Intel® Virtualization Technology for Directed I/O (VT-d) †	<input checked="" type="checkbox"/> Yes
Intel® VT-x with Extended Page Tables (EPT) †	<input checked="" type="checkbox"/> Yes
Intel® TSX-NI	No
Intel® 64 †	<input checked="" type="checkbox"/> Yes
Instruction Set	64-bit
Instruction Set Extensions	SSE4.1/4.2, AVX
Idle States	Yes
Enhanced Intel SpeedStep® Technology	<input checked="" type="checkbox"/> Yes
Thermal Monitoring Technologies	Yes
Intel® Identity Protection Technology †	Yes
- Intel® Data Protection Technology	
Intel® AES New Instructions	<input checked="" type="checkbox"/> Yes
Secure Key	Yes
- Intel® Platform Protection Technology	
Trusted Execution Technology †	<input checked="" type="checkbox"/> Yes
Thermal Design Power (TDP) : 77W	

http://ark.intel.com/products/65719/Intel-Core-i7-3770-Processor-8M-Cache-up-to-3_90-GHz

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Bus: Architecture: DMI
 Number of links: 1
 Transfer rate: 5,000 MT/s