

Intel Core i7-3632QM specifications

General information

Type	CPU / Microprocessor
Market segment	Mobile
Family	Intel Core i7 Mobile
Model number ?	i7-3632QM
CPU part number	AW8063801152800 is an OEM/tray microprocessor
Frequency ?	2200 MHz
Turbo frequency	3200 MHz
Bus speed ?	5 GT/s DMI
Clock multiplier ?	22
Package	988-pin micro-PGA (rPGA988B)
Socket	Socket G2 / rPGA988B
Size	1.48" x 1.48" / 3.75cm x 3.75cm
Introduction date	October 2012
Price at introduction	\$378

S-spec numbers

	ES/QS processors	Production processors
Part number	QCF8	SR0V0
AW8063801152800	+	+

Architecture / Microarchitecture

Microarchitecture	Ivy Bridge
Processor core ?	Ivy Bridge
Core stepping ?	E1 (QCF8, SR0V0)
CPUID	306A9 (QCF8)
Manufacturing process	0.022 micron 1.4 billion transistors
Die size	159.82mm ²
Data width	64 bit
The number of cores	4
The number of threads	8
Floating Point Unit	Integrated
Level 1 cache size ?	4 x 32 KB 8-way set associative instruction caches 4 x 32 KB 8-way set associative data caches
Level 2 cache size ?	4 x 256 KB 8-way set associative caches
Level 3 cache size	6 MB 12-way set associative shared cache
Physical memory	32 GB
Multiprocessing	Not supported
Features	▪ MMX instructions ▪ SSE / Streaming SIMD Extensions ▪ SSE2 / Streaming SIMD Extensions 2 ▪ SSE3 / Streaming SIMD Extensions 3 ▪ SSSE3 / Supplemental Streaming SIMD Extensions 3 ▪ SSE4 / SSE4.1 + SSE4.2 / Streaming SIMD Extensions 4 ?

- AES / Advanced Encryption Standard instructions
- AVX / Advanced Vector Extensions
- F16C / 16-bit Floating-Point conversion instructions
- EM64T / Extended Memory 64 technology / Intel 64 ?
- NX / XD / Execute disable bit ?
- HT / Hyper-Threading technology ?
- TBT 2.0 / Turbo Boost technology 2.0 ?
- VT-x / Virtualization technology ?

Low power features

Enhanced SpeedStep technology ?

Integrated peripherals / components

Integrated graphics

GPU Type: HD 4000
Base frequency (MHz): 650
Maximum frequency (MHz): 1150
The number of supported displays: 3

Memory controller

The number of controllers: 1
Memory channels: 2
Supported memory: DDR3-1333, DDR3-1600, DDR3L-1333, DDR3L-1600, DDR3L-RS 1333, DDR3L-RS 1600
Maximum memory bandwidth (GB/s): 25.6

Other peripherals

- Direct Media Interface 2.0
- PCI Express 3.0 interface

Electrical / Thermal parameters

Maximum operating temperature ? 105°C

Thermal Design Power ? 35 Watt

Notes on Intel Core i7-3632QM

- The processor has the following security, data protection and/or software features: Intel Secure Key, Identity Protection technology and Anti-Theft technology.
- The CPU is compatible with DirectX 11.0, OpenGL 4.0 and OpenCL 1.2 APIs.
- The graphics unit has the following software features enabled: Intel Quick Sync Video, Wireless Display, Insider, InTru 3D technology and Clear Video HD technology.