

Intel Core 2 Quad Q6700 specifications

General information

Type	CPU / Microprocessor
Market segment	Desktop
Family	Intel Core 2 Quad
Model number ?	Q6700
CPU part numbers	HH80562PH0678MK is an OEM/tray microprocessor BX80562Q6700 is a boxed microprocessor with fan and heatsink
Frequency ?	2667 MHz
Bus speed ?	1066 MHz
Clock multiplier ?	10
Package	775-land Flip-Chip Land Grid Array (FC-LGA6) 1.48" x 1.48" (3.75 cm x 3.75 cm)
Socket	Socket 775 / LGA775 / T
Introduction date	Jul 16, 2007
Price at introduction	\$530

S-spec numbers

	ES/QS processors	Production processors
Part number	QXUZ	SLACQ
BX80562Q6700		+
HH80562PH0678MK	+	+

Architecture / Microarchitecture

Microarchitecture	Core
Processor core ?	Kentsfield
Core stepping ?	G0 (QXUZ, SLACQ)
CPUID	6FB (QXUZ, SLACQ)
Manufacturing process	0.065 micron 582 million transistors
Die size	286mm ²
Data width	64 bit
The number of cores	4
The number of threads	4
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 ?	2 x 4 MB 16-way set associative caches (each L2 cache is shared between 2 cores)
Multiprocessing	Uniprocessor
Features	▪ MMX instructions ▪ SSE / Streaming SIMD Extensions ▪ SSE2 / Streaming SIMD Extensions 2 ▪ SSE3 / Streaming SIMD Extensions 3 ▪ SSSE3 / Supplemental Streaming SIMD Extensions 3 ▪ EM64T / Extended Memory 64 technology / Intel 64 ? ▪ VT / Virtualization technology ?

Low power features

- NX / XD / Execute disable bit ?
- Enhanced SpeedStep technology ?
- Stop Grant state ?
- Halt state
- Extended Halt state

Integrated peripherals / components

Integrated graphics None

Electrical / Thermal parameters

V core ? 0.85V - 1.5V

Maximum operating temperature ? 71°C (775_VR_CONFIG_05A)

Maximum power dissipation ? 155.25 Watt (775_VR_CONFIG_05A)
 167.13 Watt (775_VR_CONFIG_05B)

Thermal Design Power ? 95 Watt (775_VR_CONFIG_05A)

Notes on Intel Core 2 Quad Q6700

- Binary compatible with 32-bit x86 software
- Bus frequency is 266 MHz. Because the processor uses Quad Data Rate bus the effective bus speed is 1066 MHz