Intel Core 2 Duo E8400 specifications

General information

Type	CPU / Microprocessor
Market segment	Desktop
Family	Intel Core 2 Duo
Model number ?	**E8400**
CPU part numbers	**EU80570PJ0806M** is an OEM/tray microprocessor **AT80570PJ0806M** is an OEM/tray microprocessor in Halide free package **BX80570E8400** is a boxed microprocessor with fan and heatsink **BXC80570E8400** is a boxed microprocessor with fan and heatsink **BX80570E8400A** is a boxed microprocessor with fan and heatsink
Frequency ?	**3000 MHz**
Bus speed ?	**1333 MHz**
Clock multiplier ?	**9**
Package	775-land Flip-Chip Land Grid Array (FC-LGA8) 1.48" x 1.48" (3.75 cm x 3.75 cm)
Socket	**Socket 775 / LGA775 / T**
Introduction date	Jan 7, 2008
End-of-Life date	Last order date for consumer processors is August 26, 2011 Last shipment date for consumer tray processors is February 10, 2012
Price at introduction	$183

S-spec numbers

	ES/QS processors					Production processors	
Part number	**Q5UE**	**Q5UN**	**Q9HD**	**QHEZ**	**QHGG**	**SLAPL**	**SLB9J**
AT80570PJ0806M				+	+		+
BX80570E8400						+	+
BX80570E8400A						+	
BXC80570E8400						+	+
EU80570PJ0806M	+	+	+			+	

Architecture / Microarchitecture

Microarchitecture	Core
Processor core ?	Wolfdale
Core steppings ?	C0 (Q9HD, SLAPL) E0 (QHEZ, QHGG, SLB9J)
CPUIDs	10676 (SLAPL) 1067A (QHEZ, QHGG, SLB9J)
Manufacturing process	0.045 micron 410 million transistors
Die size	107mm2
Data width	**64 bit**
The number of cores	**2**
The number of threads	**2**
Floating Point Unit	Integrated

Level 1 cache size ?	2 x 32 KB 8-way set associative instruction caches
	2 x 32 KB 8-way set associative data caches
Level 2 cache size ?	**shared 6 MB 24-way set associative cache**
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
- SSE4.1 / Streaming SIMD Extensions 4.1 ?
- EM64T / Extended Memory 64 technology / Intel 64 ?
- VT / Virtualization technology ?
- NX / XD / Execute disable bit ?
- TXT / Trusted Execution technology

Low power features

- Enhanced SpeedStep technology ?
- Stop Grant state ?
- Halt state
- Extended Halt state
- Extended Stop Grant State
- Sleep state ?
- Deep Sleep state ?
- Deeper Sleep state ?

Integrated peripherals / components

Integrated graphics	None

Electrical / Thermal parameters

V core ?	0.85V - 1.3625V
Minimum/Maximum operating temperature ?	5°C - 72.4°C
Minimum/Maximum power dissipation ?	6 Watt (TDP in Deeper Sleep mode) / 100.31 Watt
Thermal Design Power ?	**65 Watt**

Notes on Intel Core 2 Duo E8400

- Also available as an embedded processor
- Binary compatible with 32-bit x86 software
- Bus frequency is 333 MHz. Because the processor uses Quad Data Rate bus the effective bus speed is 1333 MHz
- Part AT80570PJ0806M is manufactured in halide-free package
- BXC80570E8400 is a Chinese version