Intel Core 2 Quad Q8400 specifications

General information

Type <u>CPU / Microprocessor</u>

Market segment Desktop

Family <u>Intel Core 2 Quad</u>

Model number ? Q8400

CPU part numbers AT80580PJ0674ML is an OEM/tray microprocessor

AT80580PJ067HL is an OEM/tray microprocessor

BX80580Q8400 is a boxed processor with fan and heatsink

(English version)

BXC80580Q8400 is a boxed processor with fan and heatsink

(Chinese version)

Frequency ? 2667 MHz
Bus speed ? 1333 MHz

Clock multiplier ? 8

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 Apr 19, 2009

End-of-Life date Last order date is August 26, 2011

Last shipment date for tray processors is February 10, 2012

Price at introduction \$183

S-spec numbers

	ES/QS processors	Production processors
Part number	<u>QLQN</u>	SLGT6
AT80580PJ0674ML		+
AT80580PJ067HL	+	
BX80580Q8400		+
BXC80580Q8400		+

Architecture / Microarchitecture

Microarchitecture Core
Processor core ? Yorkfield
Core stepping ? R0 (QLQN, SLGT6)
CPUID 1067A (QLQN, SLGT6)
Manufacturing process 0.045 micron

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 2 MB 8-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

SSE4.1 / Streaming SIMD Extensions 4.1 ?

EM64T / Extended Memory 64 technology / Intel 64 ?

NX / XD / Execute disable bit ?VT / Virtualization 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 - 71.4°C

Thermal Design Power ? 95 Watt

Notes on Intel Core 2 Quad Q8400

- 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 AT80580PJ0674ML is manufactured in halide-free package
- BXC80580Q8400 is a Chinese version