

AMD Opteron 165 specifications

General information

Type	CPU / Microprocessor
Market segment	Server
Family	AMD Dual-Core Opteron
Model number ?	165
CPU part numbers	OSA165DAA6CD is an OEM/tray microprocessor <ul style="list-style-type: none">OSA165CDBOX is a boxed microprocessor
Stepping codes	CCB1E CCBBE CCBWE LCB9E LCBOE
Frequency ?	1800 MHz
Package	939-pin lidded organic micro-PGA
Socket	Socket 939
Introduction date	Aug 2, 2005
Price at introduction	\$417

Architecture / Microarchitecture

Microarchitecture	K8
Processor core ?	Denmark
Core stepping ?	JH-E6
CPUID	20F32
Manufacturing process	0.09 micron silicon-on-insulator (SOI) technology
Data width	64 bit
The number of CPU cores	2
The number of threads	2
Floating Point Unit	Integrated
Level 1 cache size ?	2 x 64 KB 2-way set associative instruction caches 2 x 64 KB 2-way set associative data caches
Level 2 cache size ?	2 x 1 MB 16-way set associative exclusive caches
Physical memory	1 TB
Virtual memory	256 TB
Pipeline	<ul style="list-style-type: none">12 (integer)17 (floating point)
Multiprocessing	Uniprocessor
Extensions and Technologies	<ul style="list-style-type: none">MMX instructionsExtensions to MMX3DNow! technologyExtensions to 3DNow!SSE / Streaming SIMD ExtensionsSSE2 / Streaming SIMD Extensions 2SSE3 / Streaming SIMD Extensions 3AMD64 / AMD 64-bit technology ?EVP / Enhanced Virus Protection ?
Low power features	<ul style="list-style-type: none">Halt modeStop Grant mode ?PowerNow!

Integrated peripherals / components

Integrated graphics	None
Memory controller	The number of controllers: 1 Memory channels: 2 Supported memory: DDR
Other peripherals	HyperTransport technology with one 16-bit link (up to 1000 MHz)

Electrical / Thermal parameters

V core ?	1.3V / 1.35V
Minimum operating temperature	0°C
Maximum operating temperature ?	49°C - 65°C

Thermal Design Power ?

110 Watt