

AMD Phenom II X4 975 specifications

General information

Type	CPU / Microprocessor
Market segment	Desktop
Family	AMD Phenom II X4
Model number ?	975
CPU part numbers	HDZ975FBK4DGM is an OEM/tray microprocessor <ul style="list-style-type: none">• HDZ975FBGMBOX is a boxed microprocessor with fan and heatsink
Stepping code	AACDC AC
Frequency ?	3600 MHz
Bus speed ?	667 MHz Memory controller One 2000 MHz 16-bit HyperTransport link (4 GT/s)
Clock multiplier ?	18
Package	938-pin organic micro-PGA
Sockets	Socket AM2+ Socket AM3
Weight	1.4oz / 38.3g
Introduction date	Jan 4, 2011
Architecture / Microarchitecture	
Microarchitecture	K10
Platform	Dragon
Processor core ?	Deneb
Core stepping ?	RB-C3
CPUID	100F43
Manufacturing process	0.045 micron silicon-on-insulator (SOI) technology 758 million transistors
Die	258mm ²
Data width	64 bit
The number of CPU cores	4
The number of threads	4
Floating Point Unit	Integrated
Level 1 cache size ?	4 x 64 KB 2-way set associative instruction caches 4 x 64 KB 2-way set associative data caches
Level 2 cache size ?	4 x 512 KB 16-way set associative exclusive caches
Level 3 cache size	Shared 6 MB 48-way set associative cache
Cache latency	3 (L1 cache)
Virtual memory	256 TB
Multiprocessing	Uniprocessor
Extensions and Technologies	<ul style="list-style-type: none">• MMX instructions• Extensions to MMX• 3DNow! technology• Extensions to 3DNow!• SSE / Streaming SIMD Extensions• SSE2 / Streaming SIMD Extensions 2• SSE3 / Streaming SIMD Extensions 3• SSE4a ?• AMD64 / AMD 64-bit technology ?• EVP / Enhanced Virus Protection ?• AMD-V / AMD Virtualization technology
Low power features	<ul style="list-style-type: none">• Cool'n'Quiet 3.0• CoolCore Technology ?• Dual Dynamic Power Management ?• Core C1 and C1E states• Package S0, S1, S3, S4 and S5 states

Integrated graphics	None
Memory controller	The number of controllers: 1 Memory channels: 2 Channel width (bits): 72 Supported memory: DDR2-1066, DDR3-1333 DIMMs per channel: up to 2 Maximum memory bandwidth (GB/s): 21.3
Other peripherals	HyperTransport 3 technology

Electrical / Thermal parameters

V core ?	0.825V - 1.4V
Maximum operating temperature ?	62°C
Thermal Design Power ?	125 Watt

Notes on AMD Phenom II X4 975

- The processor has unlocked clock multiplier