

AMD Phenom II X4 805 specifications

General information

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|-------------------------------|--------------------------------------------------------------------------------------------------------------|
| Type | CPU / Microprocessor |
| Market segment | Desktop |
| Family | AMD Phenom II X4 |
| Model number [?] | 805 |
| CPU part numbers | HDX805WFK4FGI is an OEM/tray microprocessor HDX805WFGIBOX is a boxed microprocessor with fan and heatsink |
| Stepping code | AACZC AC |
| Frequency [?] | 2500 MHz |
| Bus speed [?] | 667 MHz Memory controller One 2000 MHz 16-bit HyperTransport link (4 GT/s) |
| Clock multiplier [?] | 12.5 |
| Package | 938-pin organic micro-PGA |
| Sockets | Socket AM2+ Socket AM3 |
| Weight | 1.4oz / 38.3g |
| Introduction date | Feb 9, 2009 |

Architecture / Microarchitecture

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|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Microarchitecture | K10 |
| Platform | Dragon |
| Processor core [?] | Deneb |
| Core stepping [?] | RB-C2 |
| CPUID | 100F42 |
| 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 4 MB 64-way set associative cache |
| Cache latency ⁽¹⁾ | 3 (L1 cache) 15 (L2 cache) 47 (L3 cache) |
| Virtual memory | 256 TB |
| Multiprocessing | Uniprocessor |
| Extensions and Technologies | 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

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 peripherals / components

| | |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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

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|-------------------------------------------------|-------------------------------------------------------------------------|
| V core ? | 1.15V - 1.425V |
| V NorthBridge | 1.15V - 1.3V |
| Maximum operating temperature ? | 55°C - 71°C |
| Thermal Design Power ? | 95 Watt (Socket AM2+/Socket AM3) 104 Watt (Socket AM2) |

Notes on AMD Phenom II X4 805

On socket AM2+/AM3 platforms in the minimum performance state the processor runs at 800 MHz / 0.875 - 1.15 Volt core voltage, and has TDP 48.4 Watt

On socket AM2 platforms in the minimum performance state the processor runs at 800 MHz / 1.15 Volt core voltage, and has TDP 73.5 Watt

[1] - These characteristics were measured on a single CPU, and they can vary slightly for other processors with the same model number