

## AMD Phenom X3 8450 specifications

### General information

Type	<a href="#">CPU / Microprocessor</a>
Market segment	Desktop
Family	<a href="#">AMD Phenom X3</a>
Model number <a href="#">?</a>	<b>8450</b>
CPU part numbers	HD8450WCJ3BGH is an OEM/tray microprocessor <ul style="list-style-type: none"><li>• HD8450WCGHBOX is a boxed microprocessor with fan and heatsink</li></ul>
Stepping codes	<a href="#">JAAAB AA</a> <a href="#">JAAFBA AA</a> <a href="#">JAAHBA AA</a> <a href="#">LAAAB AA</a>
Frequency <a href="#">?</a>	<b>2100 MHz</b>
Bus speed <a href="#">?</a>	<b>One 1800 MHz 16-bit HyperTransport link (3.6 GT/s)</b>
Clock multiplier <a href="#">?</a>	<b>10.5</b>
Package	940-pin organic micro-PGA
Sockets	<a href="#">Socket AM2</a> <b>Socket AM2+</b>
Introduction date	<a href="#">Apr 23, 2008</a>
End-of-Life date	Last order date is end of 4th quarter 2008
Price at introduction	\$145

### Architecture / Microarchitecture

Microarchitecture	K10
Platform	Cartwheel (mainstream platform with AMD 780G chipset) Spider (performance platform with AMD 790FX/790GX chipsets)
Processor core <a href="#">?</a>	<a href="#">Toliman</a>
Core stepping <a href="#">?</a>	DR-B3
CPUID	100F23
Manufacturing process	0.065 micron silicon-on-insulator (SOI) technology
Die	285mm <sup>2</sup>
<b>Data width</b>	<b>64 bit</b>
<b>The number of CPU cores</b>	<b>3</b>
<b>The number of threads</b>	<b>3</b>
Floating Point Unit	Integrated
Level 1 cache size <a href="#">?</a>	3 x 64 KB 2-way set associative instruction caches 3 x 64 KB 2-way set associative data caches
<b>Level 2 cache size <a href="#">?</a></b>	<b>3 x 512 KB 16-way set associative caches</b>
<b>Level 3 cache size</b>	<b>2 MB 32-way set associative shared cache</b>
Multiprocessing	Uniprocessor
Extensions and Technologies	<ul style="list-style-type: none"><li>• MMX instructions</li><li>• Extensions to MMX</li><li>• 3DNow! technology</li><li>• Extensions to 3DNow!</li><li>• SSE / Streaming SIMD Extensions</li><li>• SSE2 / Streaming SIMD Extensions 2</li><li>• SSE3 / Streaming SIMD Extensions 3</li><li>• SSE4a <a href="#">?</a></li><li>• AMD64 / AMD 64-bit technology <a href="#">?</a></li><li>• EVP / Enhanced Virus Protection <a href="#">?</a></li><li>• AMD-V / AMD Virtualization technology</li></ul>
Low power features	<ul style="list-style-type: none"><li>• Cool'n'Quiet 2.0</li><li>• CoolCore technology <a href="#">?</a></li><li>• Independent Dynamic Core Technology <a href="#">?</a></li><li>• Dual Dynamic Power Management <a href="#">?</a></li><li>• Core C1 and C1E states</li><li>• Package S1, S3, S4 and S5 states</li></ul>

### Integrated peripherals / components

Integrated graphics	None
Memory controller	The number of controllers: 1 Memory channels: 2 Channel width (bits): 72 Supported memory: DDR2-1066 DIMMs per channel: up to 2 Maximum memory bandwidth (GB/s): 17.1
Other peripherals	HyperTransport 3.0 technology

**Electrical / Thermal parameters**

V core <a href="#">?</a>	1.2V - 1.25V
V NorthBridge	1.25V
Maximum operating temperature <a href="#">?</a>	55°C - 71°C
<b>Thermal Design Power <a href="#">?</a></b>	<b>95 Watt</b>

**Notes on AMD Phenom X3 8450**

- On socket AM2+ platforms in the minimum performance state the processor runs at 1050 MHz / 1.05 Volt core voltage, and has TDP 55.6 Watt
- On socket AM2 platforms in the minimum performance state the processor runs at 1050 MHz / 1.2 - 1.25 Volt core voltage, and has TDP 74.2 Watt