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## **AMD Thoroughbred core**

Identification of microprocessors with Thoroughbred core:

- By part number: part numbers start with one of the prefixes: "AMSN", "AXDA", "AXLD", "AXM" or "SDA" and end with "3B", "3C" or "3D".
- An example: AXMS1400GWS3B
- By CPU ID: First two digits of CPU identification number are "68".

To improve processor scalability AMD redesigned the Thoroughbred core. To distinguish between the original and redesigned core the cores are often called **Thoroughbred A** and **Thoroughbred B**. The differences between these two revisions of the core are:

		T
	Thoroughbred A	Thoroughbred B
Description	Original die shrink of Palomino core	Redesigned Thoroughbred core
Die size	80 mm <sup>2</sup>	84 mm <sup>2</sup>
Stepping <sup>1</sup>	Ends with 'A'	Ends with 'B'
CPUID	680	681
Athlon XP core voltage	Usually 1.65 V	Usually 1.6V

<sup>1</sup> - Core stepping is displayed below the part number:

Athlon Thoroughbred core features		
Introduction	April 17, 2002	
New features	0.13 micron manufacturing process Lower power consumption Increased bus speed to 333 MHz (166 Mhz DDR)	
Other names	T-bred Model 8	
Previous generation	<u>Palomino</u>	
Next generation	Barton, Thorton	

Desktop and Server processors					
	Athlon MP	Athlon XP	<u>Sempron</u>		
Manufacturing process	0.13 micron				
Cores	1				
Frequency (MHz)	1667 - 2133	1333 - 2250	1500 - 2000		
Fastest processor	Athlon MP 2600+	Athlon XP 2800+	Sempron 2800+		
Bus frequency	266 MHz	266 MHz 333 MHz	333 MHz		
L2 cache size	256 KB				
Package	453-pin PGA				
Socket	Socket 462 / A				

Mobile and Embedded processors					
	Athlon XP-M	Geode NX			
Manufacturing process	0.13 micron				
Cores	1				
Frequency (MHz)	1000 - 2133	667 - 1800			
Fastest processor	Athlon XP-M 2600+	Geode NX 2001			
Bus frequency	200 MHz 266 MHz	266 MHz			
L2 cache size	256 KB				
Thermal Design Power (Watt)		9 - 25			
Package	453-pin PGA 563-pin microPGA	453-pin Organic PGA			
Socket	Socket 462 / A Socket 563 / PGA563	Socket 462 / A			

## Comments

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Posted by: moorkai

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An error?

2015-07-27 13:33:40

Perhaps I'm wrong, but I think Barton and Thorton are not predecessors of Thoroughbred cores.

**Response**: Sorry, the last line in the "Athlon Thoroughbred core features" section should say "Next generation" instead of "Previous generation". This is fixed now. Thank you for the correction!

Post comment / picture

Last modified: 7 Mar 2018