



TR's CPU decoder ring

Cracker Jack purchase not required

by [Andrew Brown](#)

Last updated: July 23, 2004

There was a time when processors were relatively simple. You had a model name (Pentium, Athlon, Celeron...) and a clock speed, and that was pretty much it. With the Athlon XP, things started getting complicated. Suddenly, the number at the end of the name was no longer the clock speed. At first, you could sort of crib up a cheat sheet by starting with 1533MHz for the 1800+, then adding 66MHz for every additional 100 in the model number. Pretty soon, however, there were multiple chips with the same model number that differed in clock speed, cache size, and bus speed. Today, AMD and Intel have abandoned clock speed entirely on some chips in favor of three-digit model number systems that are more or less arbitrary. It's gotten to the point where you need a secret decoder ring just to understand what you're getting in a modern CPU.

Well, hold out your hand, because we dug around in the bottom of the Frosted Flakes and found one for you. The following chart lists a large number of processors, and gives you just about all the pertinent details of each one. Wondering exactly what the differences are between the two types of Athlon XP 3000+, or what the heck a Pentium 4 550 is? Just find the chip you're curious about in the table below, and all will be made clear.

Even better, you can sort the table by each column by simply clicking on the column head. That will give you a forward sort; for a reverse sort, click the same column again. Also, if we did a review of a particular processor, its name will be a link you can click on to head to that review.

Finally, it's important to note that this is a work in progress, and isn't by any means complete. Given the amount of data, there might even be a mistake or two in here as well. If you think we're missing something, or you're just sure that we're wrong about something, [drop us a line](#) and we'll do our best to take care of it. Also, you can [post your comments here](#).

Manuf	Name	Socket	Clock speed (MHz)	Multiplier	Process (nm)	Voltage	Bus speed	L1 cache (KB)	L2 cache (KB)	L3 cache (KB)	Codename
AMD	Athlon 64 2800+	754	1800	9	130	1.5	HT	128	512	0	Newcastle
AMD	Athlon 64 3000+	754	2000	10	130	1.5	HT	128	512	0	Newcastle
AMD	Athlon 64 3200+	754	2200	11	130	1.5	HT	128	512	0	Newcastle
AMD	Athlon 64 3200+	754	2000	10	130	1.5	HT	128	1024	0	Clawhammer
AMD	Athlon 64 3400+	754	2400	12	130	1.5	HT	128	512	0	Newcastle
AMD	Athlon 64 3400+	754	2200	11	130	1.5	HT	128	1024	0	Clawhammer
AMD	Athlon 64 3500+	939	2200	11	130	1.5	HT	128	512	0	Newcastle
AMD	Athlon 64 3700+	754	2400	12	130	1.5	HT	128	1024	0	Clawhammer
AMD	Athlon 64 3800+	939	2400	12	130	1.5	HT	128	512	0	Newcastle

ARTICLES & REVIEWS

TR's CPU decoder ring
EverLAN Summer 2004
Preview: S3's DeltaChrome S4
Pro GPU
Philips' Ultimate Edge sound card
Abit's AA8 DuraMax motherboard
Crytek weighs in on Shader Model 3.0

Far Cry 1.2 with Shader Model 3.0

More...

TOP TOPICS

DOOM 3 benchmarked at the HardOCP [73]

TR's CPU decoder ring [72]

New iPods are coming [60]

Your dream MP3 player [34]

Friday night topic: Gadgets [28]

The Senate considers the Induce Act [27]

Ubisoft withdraws Far Cry 1.2 patch [22]

More...

SEARCH

PROFESSIONAL
HOSTING
SERVICES
DEFENDERHOSTING.COM

AMD	Athlon 64 FX-51	940	2200	11	130	1.5	HT	128	1024	0	Clawhammer
AMD	Athlon 64 FX-53	940	2400	12	130	1.5	HT	128	1024	0	Clawhammer
AMD	Athlon 64 FX-53	939	2400	12	130	1.5	HT	128	1024	0	Clawhammer
AMD	Athlon MP 2600 +	462	2133	16	130	1.65	266	128	256	0	Thoroughbred
AMD	Athlon MP 2600 +	462	2000	15	130	1.65	266	128	512	0	Barton
AMD	Athlon MP 2800 +	462	2133	16	130	1.65	266	128	512	0	Barton
AMD	Athlon XP 1700 +	462	1467	11	130	1.5	266	128	256	0	Thoroughbred
AMD	Athlon XP 1700 +	462	1467	11	180	1.75	266	128	256	0	Palomino
AMD	Athlon XP 1800 ±	462	1533	11.5	130	1.5	266	128	256	0	Thoroughbred
AMD	Athlon XP 1900 ±	462	1600	12	130	1.5	266	128	256	0	Thoroughbred
AMD	Athlon XP 2100 ±	462	1733	13	130	1.6	266	128	256	0	Thoroughbred
AMD	Athlon XP 2500 +	462	1833	11	130	1.65	333	128	512	0	Barton
AMD	Athlon XP 2600 +	462	1917	11.5	130	1.65	333	128	512	0	Barton
AMD	Athlon XP 2600 ±	462	2083	12.5	130	1.65	333	128	256	0	Thoroughbred
AMD	Athlon XP 2700 +	462	2167	13	130	1.65	333	128	256	0	Thoroughbred
AMD	Athlon XP 2800 +	462	2083	12.5	130	1.65	333	128	512	0	Barton
AMD	Athlon XP 2800 ±	462	2250	13.5	130	1.65	333	128	256	0	Thoroughbred
AMD	Athlon XP 3000 ±	462	2167	13	130	1.65	333	128	512	0	Barton
AMD	Athlon XP 3000 +	462	2100	10.5	130	1.65	400	128	512	0	Barton
AMD	Athlon XP 3200 ±	462	2200	11	130	1.65	400	128	512	0	Barton

AMD	Athlon XP/MP 1500+	462	1333	10	180	1.75	266	128	256	0	Palomino
AMD	Athlon XP/MP 1600+	462	1400	10.5	180	1.75	266	128	256	0	Palomino
AMD	Athlon XP/MP 1800+	462	1533	11.5	180	1.75	266	128	256	0	Palomino
AMD	Athlon XP/MP 1900+	462	1600	12	180	1.75	266	128	256	0	Palomino
AMD	Athlon XP/MP 2000+	462	1667	12.5	130	1.6	266	128	256	0	Thoroughbred
AMD	Athlon XP/MP 2000+	462	1667	12.5	130	1.65	266	128	256	0	Thoroughbred
AMD	Athlon XP/MP 2000+	462	1667	12.5	180	1.75	266	128	256	0	Palomino
AMD	Athlon XP/MP 2100+	462	1733	13	180	1.75	266	128	256	0	Palomino
AMD	Athlon XP/MP 2200+	462	1800	13.5	130	1.65	266	128	256	0	Thoroughbred
AMD	Athlon XP/MP 2400+	462	2000	15	130	1.65	266	128	256	0	Thoroughbred
Intel	Celeron	478	1700	17	180	1.75	400	8	128	0	Willamette
Intel	Celeron	478	1800	18	180	1.75	400	8	128	0	Willamette
Intel	Celeron	478	2000	20	130	1.525	400	8	128	0	Northwood
Intel	Celeron	478	2100	21	130	1.525	400	8	128	0	Northwood
Intel	Celeron	478	2200	22	130	1.525	400	8	128	0	Northwood
Intel	Celeron	478	2300	23	130	1.525	400	8	128	0	Northwood
Intel	Celeron	478	2400	24	130	1.525	400	8	128	0	Northwood
Intel	Celeron	478	2500	25	130	1.525	400	8	128	0	Northwood
Intel	Celeron	478	2600	26	130	1.525	400	8	128	0	Northwood
Intel	Celeron	478	2700	27	130	1.525	400	8	128	0	Northwood
Intel	Celeron	478	2800	28	130	1.525	400	8	128	0	Northwood
Intel	Celeron D 320	478	2400	18	90	1.425	533	16	256	0	Prescott
Intel	Celeron D 325	478	2533	19	90	1.425	533	16	256	0	Prescott
Intel	Celeron D 330	478	2667	20	90	1.425	533	16	256	0	Prescott
Intel	Celeron D 335	478	2800	21	90	1.425	533	16	256	0	Prescott
AMD	Low Power Mobile Athlon 64 2700+	754	1600	8	130	1.2	HT	128	512	0	Newcastle

AMD	Low Power Mobile Athlon 64 2800+	754	1800	9	130	1.2	HT	128	512	0	Newcastle
AMD	Mobile Athlon 64 2800+	754	1600	8	130	1.4	HT	128	1024	0	Clawhammer
AMD	Mobile Athlon 64 3000+	754	1800	9	130	1.4	HT	128	1024	0	Clawhammer
AMD	Mobile Athlon 64 3200+	754	2000	10	130	1.4	HT	128	1024	0	Clawhammer
AMD	Opteron 140, 240, 840	940	1400	7	130	1.5	HT	128	1024	0	Sledgehammer
AMD	Opteron 142, 242, 842	940	1600	8	130	1.5	HT	128	1024	0	Sledgehammer
AMD	Opteron 144, 244, 844	940	1800	9	130	1.5	HT	128	1024	0	Sledgehammer
AMD	Opteron 146, 246, 846	940	2000	10	130	1.5	HT	128	1024	0	Sledgehammer
AMD	Opteron 148, 248, 848	940	2200	11	130	1.5	HT	128	1024	0	Sledgehammer
AMD	Opteron 150, 250, 850	940	2400	12	130	1.5	HT	128	1024	0	Sledgehammer
Intel	Pentium 4	478	1500	15	180	1.75	400	8	256	0	Willamette
Intel	Pentium 4	478	1600	16	180	1.75	400	8	256	0	Willamette
Intel	Pentium 4	478	1700	17	180	1.75	400	8	256	0	Willamette
Intel	Pentium 4	478	1800	18	180	1.75	400	8	256	0	Willamette
Intel	Pentium 4	478	1800	18	130	1.525	400	8	512	0	Northwood
Intel	Pentium 4	478	1900	19	180	1.75	400	8	256	0	Willamette
Intel	Pentium 4	478	2000	20	180	1.75	400	8	256	0	Willamette
Intel	Pentium 4	478	2000	20	130	1.525	400	8	512	0	Northwood
Intel	Pentium 4	478	2200	22	130	1.525	400	8	512	0	Northwood
Intel	Pentium 4	478	2267	17	130	1.525	533	8	512	0	Northwood
Intel	Pentium 4	478	2400	24	130	1.525	400	8	512	0	Northwood
Intel	Pentium 4	478	2500	25	130	1.525	400	8	512	0	Northwood

Intel	<u>Pentium 4</u>	478	2533	18	130	1.525	533	8	512	0	Northwood
	Pentium 4	478	2600	26	130	1.525	400	8	512	0	Northwood
	Pentium 4	478	2667	20	130	1.525	533	8	512	0	Northwood
	<u>Pentium 4</u>	478	2800	21	130	1.525	533	8	512	0	Northwood
	Pentium 4 520	775	2800	14	90	1.425	800	16	1024	0	Prescott
	Pentium 4 530	775	3000	15	90	1.425	800	16	1024	0	Prescott
	Pentium 4 540	775	3200	16	90	1.425	800	16	1024	0	Prescott
	Pentium 4 550	775	3400	17	90	1.425	800	16	1024	0	Prescott
	<u>Pentium 4 560</u>	775	3600	18	90	1.425	800	16	1024	0	Prescott
	Pentium 4 A	478	2800	21	90	1.425	533	16	1024	0	Prescott
	Pentium 4 B	478	2400	18	130	1.525	533	8	512	0	Northwood
	<u>Pentium 4 C with HT</u>	478	2400	12	130	1.525	800	8	512	0	Northwood
	<u>Pentium 4 C with HT</u>	478	2600	13	130	1.525	800	8	512	0	Northwood
	<u>Pentium 4 C with HT</u>	478	2800	14	130	1.525	800	8	512	0	Northwood
	<u>Pentium 4 E with HT</u>	478	2800	14	90	1.425	800	16	1024	0	Prescott
	<u>Pentium 4 E with HT</u>	478	3000	15	90	1.425	800	16	1024	0	Prescott
	<u>Pentium 4 E with HT</u>	478	3200	16	90	1.425	800	16	1024	0	Prescott
	<u>Pentium 4 E with HT</u>	478	3400	17	90	1.425	800	16	1024	0	Prescott
	<u>Pentium 4 Extreme Edition</u>	478	3200	16	130	1.55	800	8	512	2048	Gallatin
	Pentium 4 Extreme Edition	478	3400	18	130	1.6	800	8	512	2048	Gallatin
	Pentium 4 Extreme Edition	775	3400	18	130	1.6	800	8	512	2048	Gallatin

Intel	<u>Pentium 4 with HT</u>	478	3000	15	130	1.55	800	8	512	0	Northwood
Intel	<u>Pentium 4 with HT</u>	478	3067	23	130	1.55	533	8	512	0	Northwood
Intel	<u>Pentium 4 with HT</u>	478	3200	16	130	1.55	800	8	512	0	Northwood
Intel	<u>Pentium 4 with HT</u>	478	3400	17	130	1.55	800	8	512	0	Northwood
Intel	Pentium M	479	900	9	130	1.004	400	64	1024	0	Banias
Intel	Pentium M	479	1100	11	130	1.39	400	64	1024	0	Banias
Intel	Pentium M	479	1200	12	130	1.39	400	64	1024	0	Banias
Intel	Pentium M	479	1300	13	130	1.39	400	64	1024	0	Banias
Intel	Pentium M	478	1300	13	130	1.39	400	64	1024	0	Banias
Intel	Pentium M	479	1400	14	130	1.484	400	64	1024	0	Banias
Intel	Pentium M	478	1400	14	130	1.484	400	64	1024	0	Banias
Intel	Pentium M	479	1500	15	130	1.484	400	64	1024	0	Banias
Intel	Pentium M	478	1500	15	130	1.484	400	64	1024	0	Banias
Intel	Pentium M	479	1600	16	130	1.484	400	64	1024	0	Banias
Intel	Pentium M	478	1600	16	130	1.484	400	64	1024	0	Banias
Intel	Pentium M	479	1700	17	130	1.484	400	64	1024	0	Banias
Intel	Pentium M	478	1700	17	130	1.484	400	64	1024	0	Banias
Intel	Pentium M 715	478	1500	15	90	1.34	400	64	2048	0	Dothan
Intel	Pentium M 725	478	1600	16	90	1.34	400	64	2048	0	Dothan
Intel	Pentium M 735	478	1700	17	90	1.34	400	64	2048	0	Dothan
Intel	Pentium M 745	478	1800	18	90	1.34	400	64	2048	0	Dothan
Intel	Pentium M 755	478	2000	20	90	1.34	400	64	2048	0	Dothan
Intel	Xeon	603	1400	14	180	1.75	400	8	256	0	Foster
Intel	Xeon	603	1500	15	180	1.75	400	8	256	0	Foster
Intel	Xeon	603	1700	17	180	1.75	400	8	256	0	Foster
Intel	Xeon	603	1800	18	130	1.475	400	8	512	0	Prestonia
Intel	Xeon	603	2000	20	130	1.5	400	8	512	0	Prestonia
Intel	Xeon	603	2000	20	180	1.75	400	8	256	0	Prestonia
Intel	Xeon	604	2000	20	130	1.3	400	8	512	0	Prestonia
Intel	Xeon	603	2200	22	130	1.5	400	8	512	0	Prestonia

Intel	Xeon	603	2400	24	130	1.5	400	8	512	0	Prestonia
Intel	Xeon	603	2600	26	130	1.5	400	8	512	0	Prestonia
Intel	Xeon	603	2800	28	130	1.5	400	8	512	0	Prestonia
Intel	Xeon	603	2800	28	130	1.475	400	8	512	2048	Gallatin
Intel	Xeon	603	3000	30	130	1.525	400	8	512	0	Prestonia
Intel	Xeon	604	2000	15	130	1.5	533	8	512	0	Prestonia
Intel	Xeon	604	2400	18	130	1.5	533	8	512	0	Prestonia
Intel	Xeon	604	2400	18	130	1.525	533	8	512	1024	Gallatin
Intel	Xeon	604	2667	20	130	1.5	533	8	512	0	Prestonia
Intel	Xeon	604	2800	21	130	1.5	533	8	512	0	Prestonia
Intel	Xeon	604	2800	21	130	1.525	533	8	512	1024	Gallatin
Intel	Xeon	604	3067	23	130	1.525	533	8	512	0	Prestonia
Intel	Xeon	604	3067	23	130	1.525	533	8	512	1024	Gallatin
Intel	Xeon	604	3200	24	130	1.525	533	8	512	1024	Gallatin
Intel	Xeon	604	3200	24	130	1.525	533	8	512	2048	Gallatin
Intel	Xeon	604	2800	14	90	1.425	800	16	1024	0	Nocona
Intel	Xeon	604	3000	15	90	1.425	800	16	1024	0	Nocona
Intel	Xeon	604	3200	16	90	1.425	800	16	1024	0	Nocona
Intel	Xeon	604	3400	17	90	1.425	800	16	1024	0	Nocona
Intel	Xeon	604	3600	18	90	1.425	800	16	1024	0	Nocona
Intel	Xeon MP	603	1400	14	180	1.75	400	8	256	512	Foster
Intel	Xeon MP	603	1500	15	180	1.75	400	8	256	512	Foster
Intel	Xeon MP	603	1500	15	130	1.475	400	8	512	1024	Gallatin
Intel	Xeon MP	603	1600	16	180	1.75	400	8	256	1024	Foster
Intel	Xeon MP	603	1900	19	130	1.475	400	8	512	1024	Gallatin
Intel	Xeon MP	603	2000	20	130	1.475	400	8	512	1024	Gallatin
Intel	Xeon MP	603	2000	20	130	1.475	400	8	512	2048	Gallatin
Intel	Xeon MP	603	2200	22	130	1.475	400	8	512	2048	Gallatin
Intel	Xeon MP	603	2500	25	130	1.475	400	8	512	1024	Gallatin
Intel	Xeon MP	603	2700	27	130	1.475	400	8	512	2048	Gallatin
Intel	Xeon MP	603	2800	28	130	1.475	400	8	512	2048	Gallatin
Intel	Xeon MP	603	3000	30	130	1.5	400	8	512	4096	Gallatin
<u>Manuf</u>	<u>Name</u>	<u>Socket</u>	<u>Clock speed (MHz)</u>	<u>Multiplier</u>	<u>Process (nm)</u>	<u>Voltage</u>	<u>Bus speed</u>	<u>L1 cache (KB)</u>	<u>L2 cache (KB)</u>	<u>L3 cache (KB)</u>	<u>Codename</u>

Contents copyright © 1999-2004 by The Tech Report, LLC. All rights reserved.
 All trademarks used are property of their respective owners.
 News comments and forum posts remain property of posters.