

Re: How to find out the real, maximum possible CPU speed (WITHOUT overclocking) ?

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<http://www.tech-archive.net/Archive/WinXP/microsoft.public.windowsxp.hardware/2006-12/msg00161.html>

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 - *Date:* Thu, 30 Nov 2006 13:41:55 -0500
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"Peter Meister" <pmeister2@xxxxxxxxx> wrote in message
[news:4565d08b\\$0\\$27612\\$9b4e6d93@xx](mailto:news:4565d08b$0$27612$9b4e6d93@xx)

I was running an AMD Athlon CPU on an older Elitegroup motherboard.
Some diagnostic tools show me a modell 1400 MHz (10.5 x 133) 1600+ for
this CPU.

Then, a week ago, I changed the motherboard to another Elitegroup
motherboard (K7S5A).

Note: I moved the old CPU to the new motherboard as well

Much to my surprise the same diagnostic tools show now a CPU modell:
1046MHz (10.5 x 100)

So the CPU modell changes when the underlying motherboard changes ?

It seems to me that the CPU diagnostic software tools show only the
effective Mhz

But how do I get the real, maximum possible Mhz of the current CPU
(WITHOUT Overclocking) ?

I assume that the new motherboard is setup with FSB of 100 in contrast to
133 on the old motherboard.

How can I change the FSB from 100 to 133: Is this possible by Software,
BIOS or Jumper ?

How do I find out all possible combinations between CPU speed and FSB
speed ?

Peter

Hi, Peter. Many of us have determined the multiplier-unlocked AMD XP+
cpu's to be quite the same, regardless of what speed was specified when you
were buying. The mere difference between, say, 2 different-speed cpu's is

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that one may run better/faster than the other. When they were mfg'd, it seems all were produced on the same line, and some ran best at 1700+—speeds, some better at 1800+, some at 1900+, 2000+, 2100+, etc. (Later on, they tested and locked the multipliers at one good freq. and labelled/sold it as such.) But, the unlocked ones, even bought as say a 1700+ may in fact run quite well at a higher multiplier and/or fsb, & hence higher mhz. If the market suddenly needed a bunch of 1900+'s and all AMD had in storage was 2100+'s, they would mark them 1900+'s and sell them where they would operate fine, underclocked, as 1900+. Hence, were one to use it in a mobo applying multipliers and fsb for a 2100+, it would NOT be overclocked and would run fine as the faster one.

So, to determine the "real, maximum possible CPU speed (WITHOUT overclocking)", one must try all multipliers, within a realistic range, and determine its max. mult. WITHOUT overvolting. Then, do same with fsb's. Then, using these two maximums, you find the figure (Recall that mhz/speed is obtained by multiplying fsb by multiplier.) which is the max. mhz. it will run as a stable cpu. I've actually had a few 1700+'s that were labelled/sold as such, that would run 2000 TRUE mhz, and maybe a tad better—much faster than a 2000+'s real speed—all w/o overvolting, hence without overclocking.

You will find your K7S5A can supply 133 fsb via its native bios; hence it will run your cpu at the same speed as your previous board ($133 \times 10.5 = 1400$ REAL mhz/speed). Some of us used the "Honey Bios", as mentioned by Buffalo, above. It was nice as he told you. And, again as he said, 138 fsb was the sweet spot for that mobo. A caution or 2: upping the fsb from 133 to 138(5 greater) increases speed by $5 \times 10.5 = 52.5$ mhz. ONE: Only you can decide if that extra 52.5 mhz is worth reflashing your bios for. TWO: Only a few of those mobos would run very long, after setting the fsb to 133 via the cmos/bios without it losing its fsb—setting. They would inherently drop back to their lower, 100 fsb, parameter. And they did it with AND without using the Honey—bios: I know, because I built—and—sold many systems with that mobo.

And, I ate/chewed on some of the mobos, both when a few customers complained AND then when I voluntarily contacted customers and checked them myself. Some buyers were satisfied w/o any contribution on my part, as they knew very little about computers, and could tell NO difference when we compared theirs at 100 fsb to its performance at 133 fsb. Sometimes it would remain at 133 for a few weeks, sometimes for a few days, and a couple for a couple of hours!

Good luck, and remember when it comes to AMD XP+cpu's, you cannot overclock one as long as it runs stable at whatever combo of fsb—and—multiplier you use—so long as you DO NOT over—volt the cpu!
HTH, s