XP Voltage And Multiplier Mod

I recently ran a piece about modifying the bridges of a CPU in order to break a CPU's default hardlocks. I was surprised at the response and was asked to elaborate in greater detail about the mod. This rather tedious process is really only desirable when your BIOS does not have options for multiplier and voltage changes. The Seti Monster uses an ECS K7VTA3 KT333 mobo and while it is a fine stable motherboard it lacks much in the overclocking department. There are adjustments for 140fsb - 150fsb - 160fsb only. There aren't any options for voltage or multipliers so you are limited to 140fsb as AMD's are rather power hungry when overclocked (without more volts you are stuck)... but with the OCinside interactive program we can change that!

This is an XP1800+ that has had the pits pre-filled with my favorite goop... Liquid paper; pits are the laser cuts AMD has made between the dots in order to discourage people from messing with the hardlocks. If you do not fill the pits in you will short the dots to the grid below the substrate and mess up the process so: Fill In The Pits! Now lets goto OCinside and look at the schematic our desired alterations bring up.


1,850 Volt
6.25 x / 6.50 x SB (12.5 x / 13 x FSB)
Select the condition of the multiplier lock
at 140 MHz FSB
result 1750 MHz
Rating 2100+
OCINSIDE
Hardware Page
L3
L1
L4

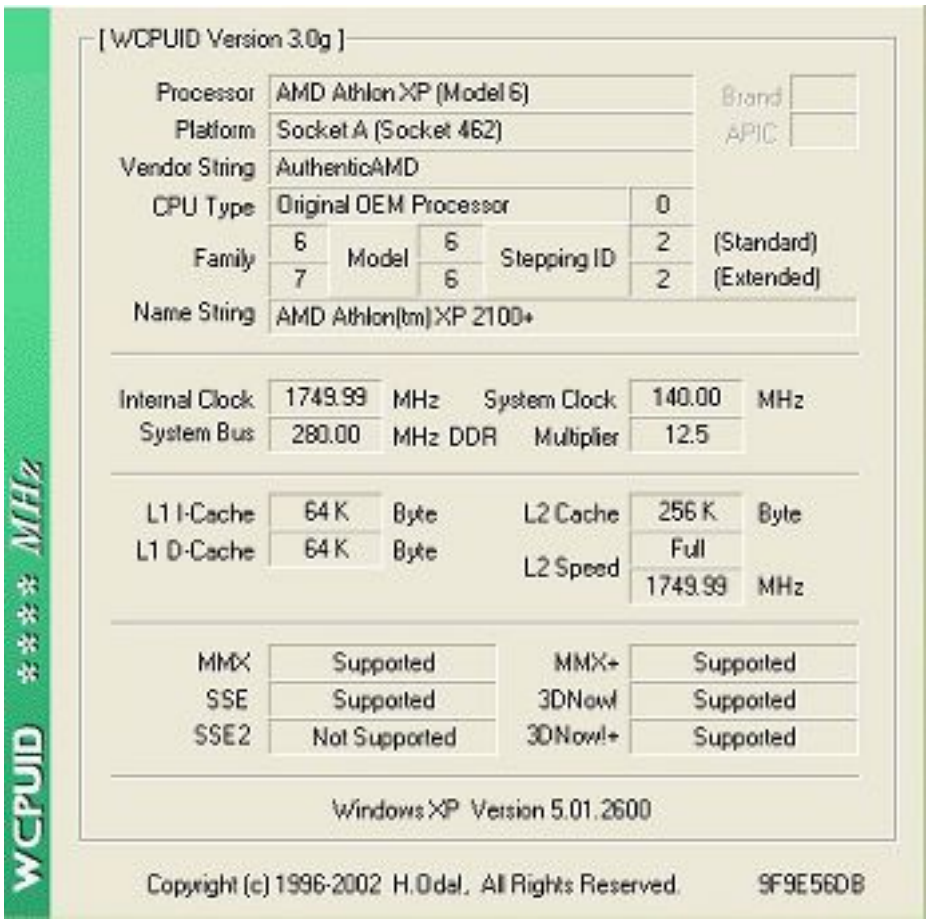
As you can see I have chosen the maximum voltage of 1.85v, 12.5x multiplier and included the 7MHz FSB adjustment allowed by the bios. In return the chip now reads as a 2100+ and clocks at 1750 MHz; a significant increase over the 1533MHz default speed. The schematic shows which bridges on the CPU needs to be shorted through a careful application of conductive ink in order to alter the CPU hardlock. We need to change L3, L4, L10 and L11. Only L11 presents serious difficulty since there are many shorts in a small space to be done (many a naughty word uttered during this process...) Here is a pic of the gear I used to connect those teeny dots.

As you can see I favor a razor since it is easier to control for my trembly hands. I dip the edge in the silver ink and lightly drag it between the dots... it works for me. I then use a pin to separate cross-shorts... I simply wait for the ink to get tacky and then separate the bad spot with the pin... leaving a clear channel between shorted bridges.

There are some rules to follow when connecting the dots... you must not cross-short, you must fill in the pits between the dots and you must not allow the conductive ink to touch any of the ground points on the CPU. Why? 'Cause I said so! Now stop asking silly questions! Now that that's settled; What's a ground point? Every

bridge has them... on the schematic it appears as a small dot or triangle off to the side of the bridge cluster. Look at the pic above and you will see it as a small metallic triangle on the bottom left side just to the right of the "L11" indicator.

This is the next series of shorts that need to be made... these are much easier than the L11's!!! L3, L4 and L10 need to be shorted according to the schematic supplied by OCinside. For L3 it is the last two bridges to be shorted, on L4 it is the first two that you must short and on L10 it is the first bridge you short. VOILA! You are done with the process. You have essentially altered the chip so it believes that it is an XP2100+ and that its default voltage is 1.85v. It will appear thus on any motherboard it is used on. Additionally, it is permanent unless you scrape of the conductive ink. Let's close with a shot of H. Oda's utility CPU ID (g).



There you have it... a successful mod! (was there any doubt?) The CPU now reports as a 2100+, clocks at 1750MHz and is set to multiplier 12.5x Who says you can't overclock on an ECS mobo!

Outcast