

Re: new CPU for P2B-S

Source:

<http://newsgroups.derkeiler.com/Archive/Alt/alt.comp.periphs.mainboard.asus/2006-01/msg01107.html>

- *From:* P2B <p2b@xxxxxxxxxxxxxx>
 - *Date:* Fri, 27 Jan 2006 09:55:17 -0500
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nissaba@xxxxxxxxxxx wrote:

Hi, thanks for the info.

Well final analisys my board is a rev < 1.04 L

No SCSI :-(

I saw on the groups that some people where able to replace the hip6004acb chip (which I sadly have) and to get the voltage working, then the same people where about to switch the clock generator from ics9150-08 to a ics9250-08 and I did not see follow-up to the thread :(so I am left wondering if any one was able to replace the chip... I know the chip is not easy by now to get well at least if you just buy 1!!

I have swapped about a dozen of these chips. They are much more difficult than voltage regulators because there are a lot more pins and the pin spacing is tighter, but it can be done successfully.

I once talked an ICS distributor into sending me two ICS9250-08 as a sample, but was never able to buy them in quantity 10 - the minimum order was always 100 chips or \$US500 per line item. All the other clock generators I've swapped were transplanted from dead motherboards - after checking out the dead board with an oscilloscope to make sure it had clocks!

ICS9250-18 is also pin-compatible, and clocks up to 166Mhz :-)

I am wondering if I could simply replace it or its output with a simple

Re: new CPU for P2B-S

crystal based circuit I could solder on the board to replace the clock signal... basically with out really removing the IC but chopping off the lead that sends the signal to the board and wire in a small crystal circuit in stead?? It would be ugly hack that is sure!

It has been done - Google "turbo pll" for the gory details :-)

I am just starting up in electronic (for fun/hobby) so I saw that we can use a crystal and some capacitors and resistor to create the clock signal instead of the IC, and also I am wondering if this could let me run the CPU at 133mhz with out forcing the AGP in 133mhz mode (which send it's a 89mhz signal if I remember my reading).

I would in a way prefer to get the IC needed to replace both chips and get the board able to work as rev 1.04 can... still if one changes the ICS 9150 to a 9250 do we need to add one more jumper?

Yes, because 9250 has 4 FSB selection inputs vs. 3 on the 9150. If your board is revision 1.03, it will have empty sites for the jumper and programming resistor. If it's 1.02 or older, you'll have to jury rig something similar to the 4th FSB jumper modification for P2B-D/DS boards:

<http://tipperlinne.com/p2b-ds150.htm>

P2B

again thanks!

P2B wrote:

Pascale Beaulac wrote:

hi I got a p2b-s box free as my company got rid of it :D
it curently as a 350mhz cpu.

Re: new CPU for P2B-S

I read on the net I could upgrade to better if I flashed the bois with the 104 beta3 bios.. so I did.

now I kind of rushed in to buying a CPU I got this model

specifications: <http://processorfinder.intel.com/scripts/details.asp?sSpec=SL>

(Excellent condition, fully tested, certified error free)
(32k of internal buffer cache, 256k on-die L2 external ATF cache, Vcc +1.65V)
(Dual Independent Bus (DIB), with 3D MMX Technology capabilities)
(Model number: 800/256/133/1.65V S1, i(m) (c) '00 SL3XQ)
(Serial/Part number: 00330408-0262, Made in Costa Rica)
(Fully compatible with any Pentium II/III 440BX, 440ZX "Slot1" Motherboard supporting 133 Front Side Bus only)

image: <http://home.eol.ca/~bensonw/ibm-hs.JPG>

I got the CPU and plugged it in not making any change. system does not boot and does not go beep and does not show the BOIS welcom... (hopefully my my 800cpu is not busted because of that and is hopefully DOA, got it from ebay)

so I read more, then I undertand I need to set my bus to 133 instead of 100mhz. my system jumpers only allow to set them to 112mhz max.

I saw on <http://tipperline.com/p2b-s150.htm> that I will need (if my board is the corect one) solder some parts and then I will be able to set my self to the corect bus freq

ok say I done that, what do I do about voltage, I did not see any way to change it.

I heare that the CPU may not care about the multipler, well at 133mhz for 6.0X it gives me 798mhz CPU so I am cool... right??

Re: new CPU for P2B-S

now that CPU any chance it will work or do I really need to buy a slotket and tualian CPU??

wosrt comes I will stick with the 350mhz and had wasted 46\$can for the CPU unit.

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////////////////////////////////////
//Pascale Beaulac <mbeaulac@xxxxxxxx>//
//Technical Support Representative //
//Primus Telecommunications Canada //
//<http://support.primus.ca> //
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Assuming your new CPU is not DOA, the fact that it does not POST on your P2B-S implies the motherboard is revision 1.03 or older, and therefore not able to supply 1.65v Vcore requested by the CPU.

You'll need to install 'slot jumpers' and run the CPU at 1.8v. The instructions are here:

http://homepage.hispeed.ch/rscheidegger/p2b_procupgrade_faq.html#slot1 not below 1.8

You will not be able to install the 4th FSB jumper on your revision 1.03 or older board - that modification only works for revision 1.04 boards which have the 133Mhz-capable clock generator. The best you will be able to do with an 800/133 CPU on an older P2B-S is 6 x 112Mhz = 670Mhz.

P2B

<http://tipperlinne.com/p2bmod>