Q605 (LC475, P475, P476) Speedup to 40MHz w/o external oscillator

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I tried the LC475 40MHz Speedup by just swapping the resistors as outlined in the Q605 (LC475, P475, P476) Speedup (33MHz), but failed.
Fortunately during the experiments, I found a successful 40MHz LC475 speedup.

Here it is:

1. R22, R21, R25, R24 are set to the 33MHz-configurations (see Q605 (LC475, P475, P476) Speedup (33MHz)).
    ie. R22=301, R21=Open, R25=Open, R24=472

2. Detach pin #9 of U17 (Gazelle clock generator chip, Apple p/n 343S1135 -a)

3. Pulled up pin #9 of U17 with a 4.7k Ohm resistor to Vcc (5 volts).

Remove J18; this modification may only work in "LC475 mode"; LC475 owners can ignore this as LC475's were shipped without J18.
And it looks like this might only work if you have a 68040RC25 or faster processor, so you will need to replace your 68LC040RC25 processor if you have not already done so.
If you have any problems you will want to replace the PLL (MC88920) with a faster one. The MC88920 is rated at 50MHz (25MHz bus). The MC88916DW70 is rated at 70MHz (35MHz bus), and the MC88916DW80 is rated at 80MHz (40MHz bus). The MC88916DW70 is used in many of the other Centris/Quadra level machines.

That's all.

Several people have contacted me about obtaining the MC88916DW70 PLL's as they are not all that easy to come by. Output Enablers, the business I am a partner in, will now stock these parts.

Marc

Experiment Results

1. I checked 13" Video, VGA Video (640X480 60Hz), FDD, Serial port, Modem port, SCSI port, and have observed no problems.

2. I checked 16" Video, SVGA Video (800X600 56Hz) are work but flicker observed.

3. The Color Pivot monitors don't seem to be able to sync at 40MHz.

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