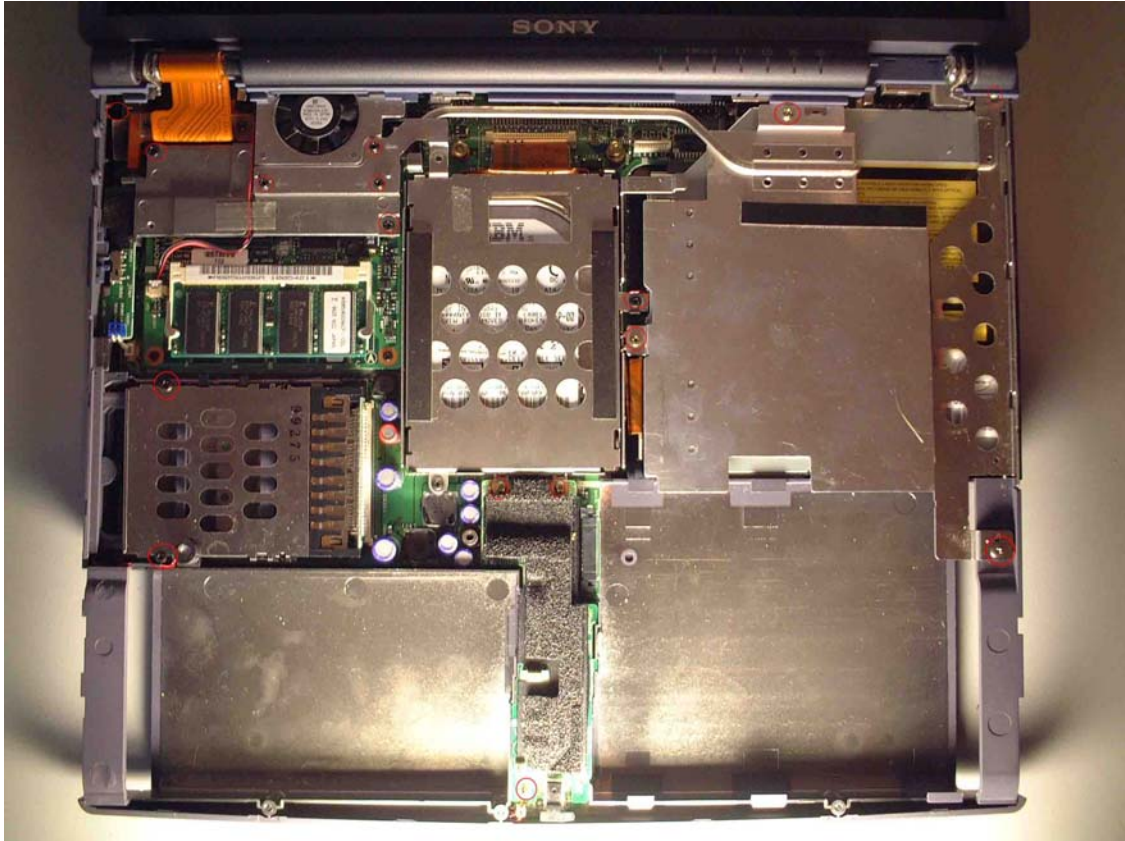


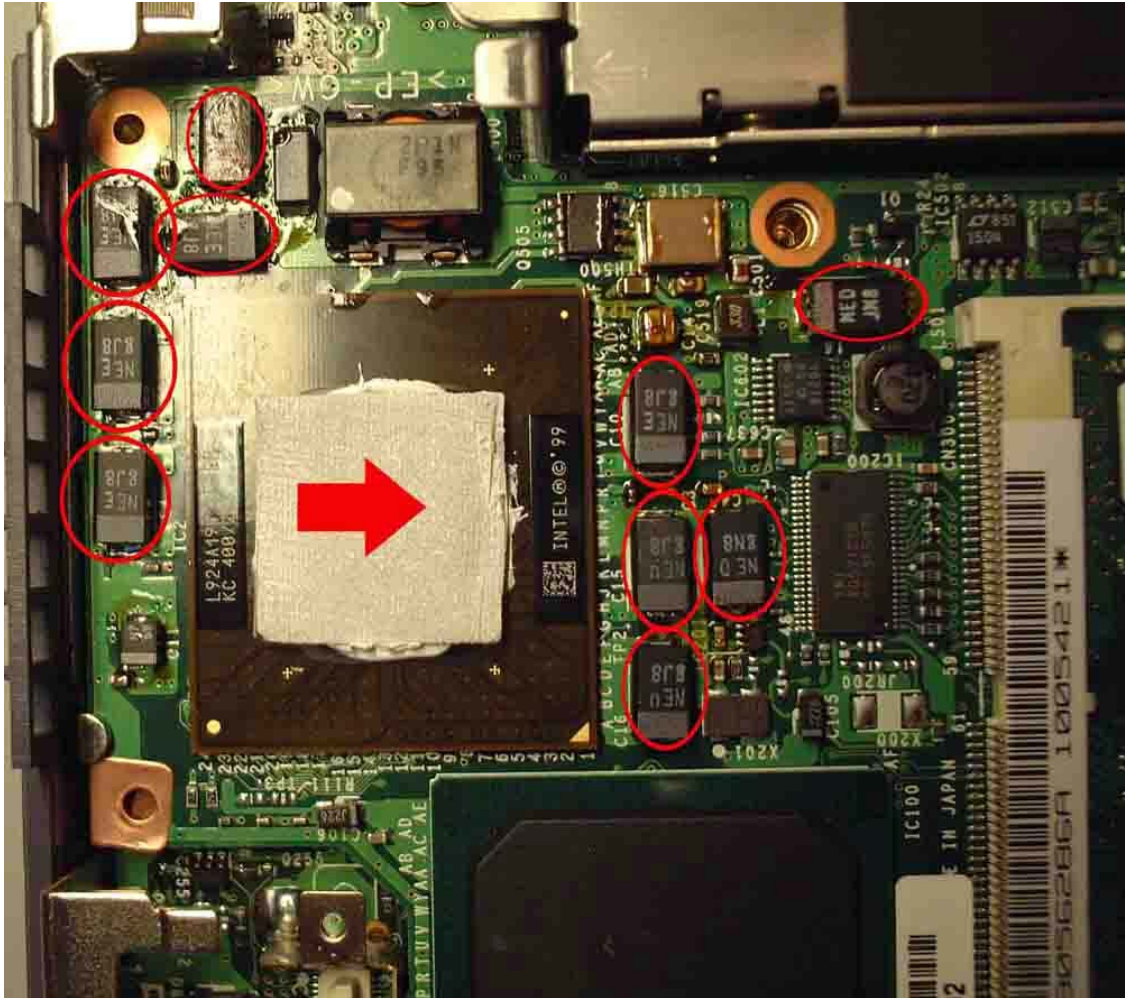
This problem presents in all F-series of SONY “Vaio” laptops with PII processors. For repair, you need disassemble motherboard and then disconnect processor module. How to do it, shown on some pictures listed below.



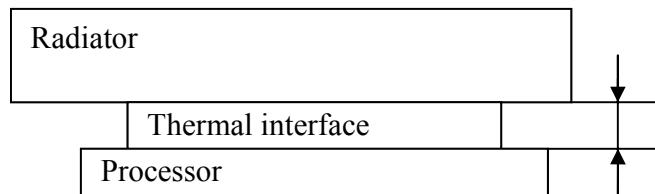
Disassembly procedure:

1. speakers plate
2. keyboard
3. upper frame with touchpad
4. HDD
5. plate what covers CD-ROM
6. CD-ROM
7. HDD bracket
8. power module (between battery and FDD)
9. LCD module
10. processor radiator
11. motherboard with modem
12. disconnect processor module from motherboard

On the picture shown below in red circles there are bad capacitors and red arrow pints on original thermal processor interface.



So, we have separate processor module. Now we simply change capacitors round processor (new capacitors must have the same or grater capacity and working voltage, and what most important same or grater working temperature, I'm using 100C capacitors). These capacitors staying between +Vcc processor and ground, so, if they are bad, processor power is abnormal, what leading to instability of processor. The cause of that is very bad thermal interface between processor and radiator.



Please notice what thickness of thermal interface is more than 1mm. That's no good, because heat conduction of this interface is very bad, but if you plan to use your laptop less than another two years leave it as is.

I'm, in cases like this, usually putting copper plate with special thermal compound, but be careful in this case: thickness of this plate must be a tiny bit less than distance between radiator and processor. When I did so, the radiator fan starts running only after ½ hour of playing MPEG4. Before that, the fan starts when windows was still booting.

Please also notice what this is common problem in almost all electronic devices such as TV, Video, and so on. There is two ways to avoid this: use high temperature and quality capacitors or make better thermal design.

P.S. In my case, I use 220uF 3.3v 100C capacitors with price 0.15 cents (USA) for each one.