

Fixing a completely gone wrong ATI BIOS flash

From TPU Reference

The other day I was trying to recover a Radeon X1300 which was flashed with the wrong X1300 BIOS.

To do that I put an X1900 CrossFire (first card I had handy) into the primary PCI-E slot and the X1300 into the secondary slot.

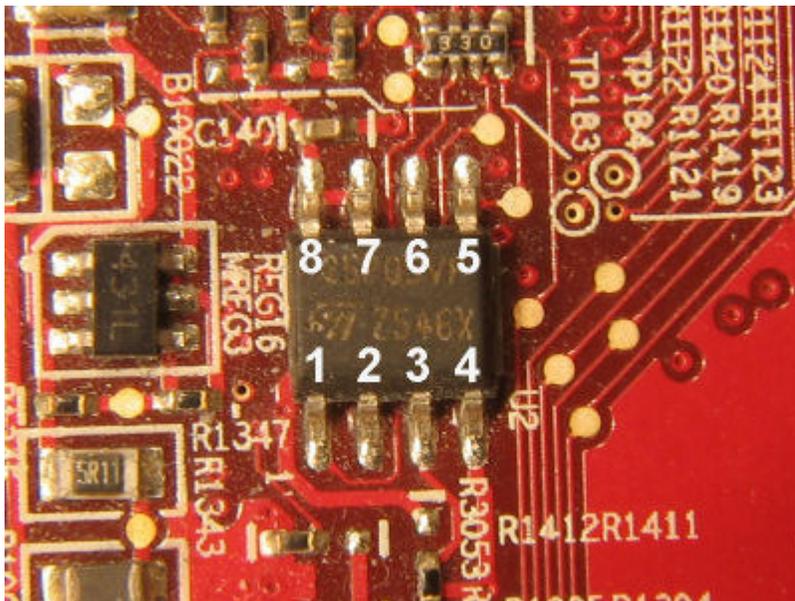
As always I was in a hurry so I ran: `atiflash -f -newbios -p 0 x1300.bin`

Heart Attack!! Realize what just happened?

The 0 stands for adapter 0 which is the PRIMARY card, so my X1900 CF now had an X1300 BIOS on it.

So I thought, I'll just flash it back... Problem: the X1900 CF PCI device ID changed from 7249 to 7346. ATI's flashing programs query the device ID to know which GPU to expect, so the software can use the right flashing method. Unfortunately a device with 7346 doesn't exist at all so ATIFlash didn't even show the card as installed.

The only way I could imagine how to fix this is by disconnecting the flash memory somehow so that the device ID does not get changed (all ATI GPUs have a default value which can be overwritten by the ROM. Not all bits can be changed, that's why I ended up with 7346 instead of a real X1300 device ID).



This is the flash ST 25P05 flash chip of the X1900 CrossFire. It is identical to the M25P05 for which you can easily find the datasheet online.

Unsoldering the chip was out of question, it is way too small to do with my equipment. Another idea I had was unsoldering just one pin, but that's very hard as well with all the other components around. Also when trying to lift a pin you often lift the PCB trace with it which pretty much means dead card.

