

PCI-7200 (no-write) problem

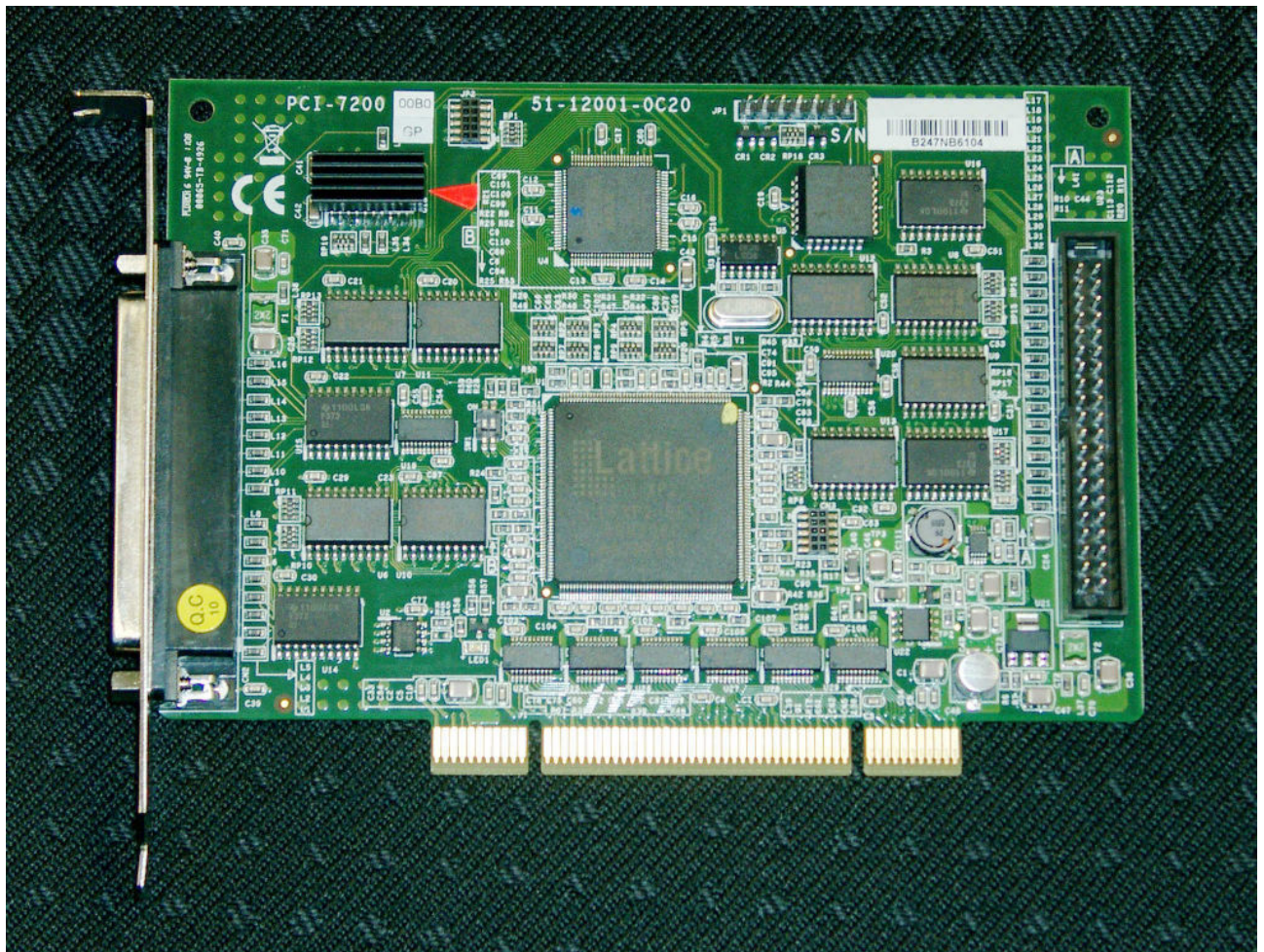
M. Wunderlich 21Oct2012-11-21 mwunderlich@mpifr-bonn.mpg.de

In a couple of systems the control PC was no longer able to write data to the Core2 modules. Configuration with the JTAG programmer is done properly, but after that no software control is possible.

An indication is that the 1pps LEDs are blinking, they are not synchronized, and that the write-access LEDs (which should be synchronized as well) are not doing anything.

There is one driver on the PCI-7200 board controlling the write line. This driver is a 74HCT244 type. For reasons still not fully understood, this driver is burnt sometimes. This can be easily seen on the chips top, there is a bit of brown smear on the print.

As a work-around, the driver is replaced by a standard 74LS244 device. In addition a heat-sink is glued to the top. Make sure that there is a proper airflow along this board. Look after flat cables blocking the area.



The boards suffering from this problem have been repaired this way. They have been working for a prolonged period of time now without any incident.