Damage to FPGAs

- **Design Practice**
  - **Internal buses**
    - **contention**
  - **Thermal consideration**
    - **Maximum power dissipation of the package**

- **Generate incorrect bit files!**
  - **I/O fixed on the board.**
    - **use the correct pin allocation file**
  - **Configurations must take into account interconnection to other devices on the board**

Damage to FPGAs

- **Download incorrect bit files!**
  - **bit files generated for same devices can be loaded**
    - **CMM system FPGA Vs crate FPGA**
    - **This is more likely than mixing up bit files between CPM and CMM**

  - **bit files generated for different package types can be loaded**
    - **CP Vs CMM**

  - **bit files generated for different devices can be loaded**
    - **XCV600 Vs XCV1000**

  - Xilinx Answers Record Number: 8436

Damage to FPGAs

- **Monitor the temperature of the device**
  - **Use FPGA internal temperature diode**
  - **CAN bus**
  - **Other hardware solutions (for general purpose modules)**
    - **Interface between temperature diode and power supply**
    - **Interface between diode and INIT to reset configuration**

- For all things that are flexible, the chances of inadvertent failure are increased.