Flashing Core from Quartus II Programmer

To upgrade cores, use the `Altera Quartus II Programmer` for Windows or Linux application and an `USB-Blaster` connected to the `Vampire JTAG header`.

End-users can use this method or by using dedicated `FlashRoms` binaries. See Flashing Core from AmigaOS 3.x for more informations. The Quartus method is the only one able to flash bricked cards.

Where to buy USB-Blaster

`ALTERA USB-Blaster` device can be found easily on many Online Shops. Estimated price is **between 4USD to 15USD**. Just ensure it is compatible with `ALTERA Cyclone III` FPGAs, and provided with :

1. The `USB-Blaster` device itself.
2. The `JTAG` cable.
3. The `Mini-USB` to USB cable.

For example, search this item on **ebay** or **amazon** :

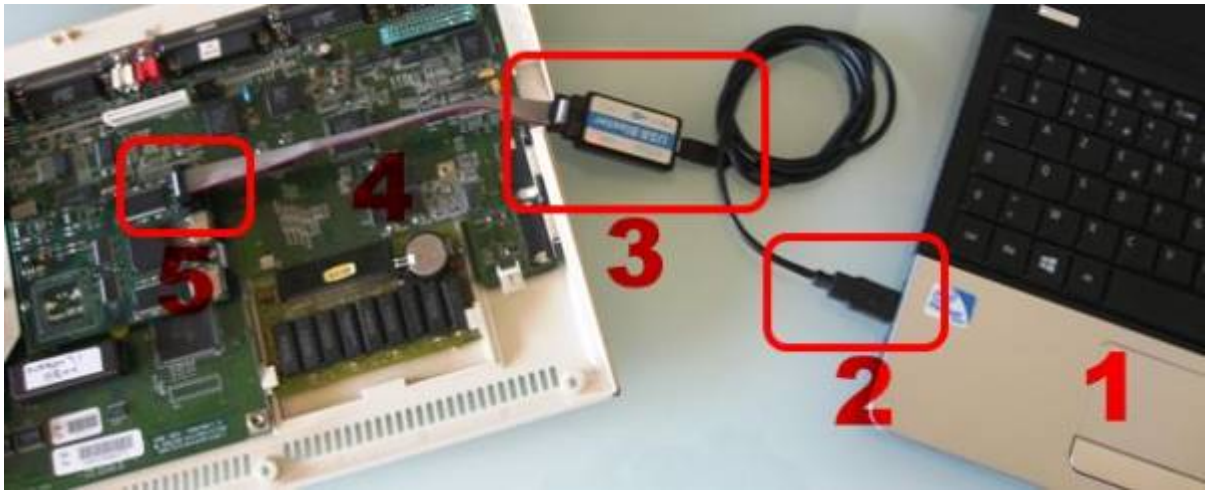
- EBay.com >> ALTERA+USB-Blaster
- Amazon.com >> ALTERA+USB-Blaster

How to connect USB-Blaster to Vampire board

Below is the full connection chain to use :

(1) PC ⇒ **(2)** USB to Mini-USB cable ⇒ **(3)** USB-Blaster device ⇒ **(4)** JTAG cable ⇒ **(5)** Vampire JTAG header

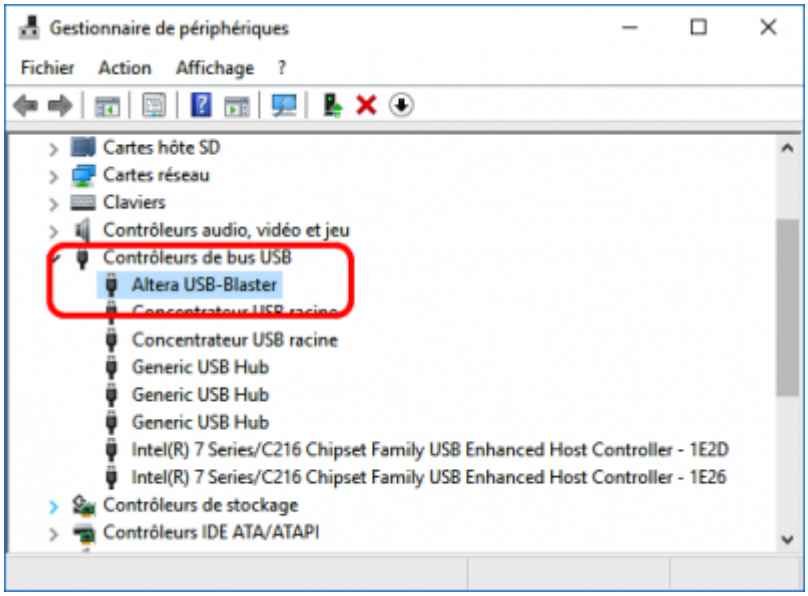
⚠ **POWER OFF your Amiga**, **NEVER** connect or disconnect the **USB-Blaster** while your Amiga is powered on !



How to install Quartus II Programmer

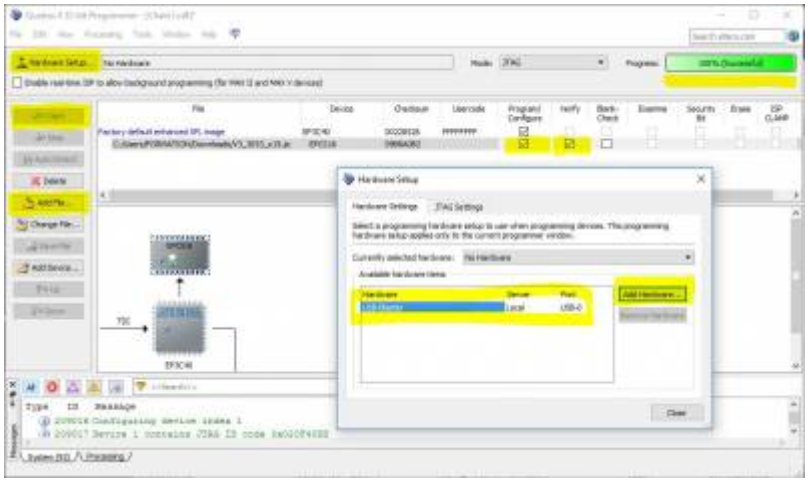
1. **Download** ALTERA Quartus II Web Edition.
2. Take care of what you download on the **Altera** WebSite.
3. You do **NOT** need the **FULL** Quartus application. Avoid the >1GB setup !
4. What you need is called exactly `Altera Quartus II 13.1 Programmer`. It is about **200MB**.
5. There are different versions for **Linux** and for **Windows**, tested Ok on Windows 10.
6. There are different versions for different Cyclone FPGAs.
7. Ensure you selected the one that is compatible with the **Cyclone III** FPGA.
8. **Install** the `Altera Quartus II 13.1 Programmer` setup on your computer.
9. You might need to install by hand the USB driver for the `USB-Blaster`.

On Windows, open the **Device Manager** and ensure that the USB Driver for USB-Blaster is correctly installed. If it is **NOT** correctly installed, then select the .INF driver information file from the Quartus setup archive.



How to flash the Vampire from Quartus

1. **Power OFF your Amiga** before connecting the USB-Blaster device.
2. Connect the USB-Blaster to the Vampire JTAG header using the JTAG cable.
3. Connect the USB-Blaster to the PC using the Mini-USB to USB cable.
4. The 'POWER' LED on the USB-Blaster should be 'Red'.
5. Open Quartus II Programmer.
6. Click the '**Hardware Setup**' button.
7. Select the `USB-Blaster` item in hardware device list.
8. Click '**Add file**' and select a `.JIC file` to flash on the Vampire board.
9. **NEVER** USE a `.JIC file` that is not dedicated to your hardware. It might **DESTROY** your FPGA.
10. Check the '**Program/Configure**' and '**Verify**' options. See picture below.
11. FYI, by selecting `Erase` checkbox, Vampire FPGA will emptied. So that the Amiga will boot on built-in CPU (V600).
12. **Power ON your Amiga**
13. Click '**Start**' button.
14. Your Amiga will freeze or reboot on built-in CPU during this process.
15. **Wait** until flashing is finished, '100% (Successful)'. It takes about 1 or 2 minutes.
16. **Power OFF** your Amiga and wait at least 10 seconds.
17. Finally, **Power ON** your Amiga.



Gallery

USB-Blaster device screenshot

Additional tools

- Quartus II Web Edition.

Home | Links | Install new cores