

TEC0850 MAX10 Firmware

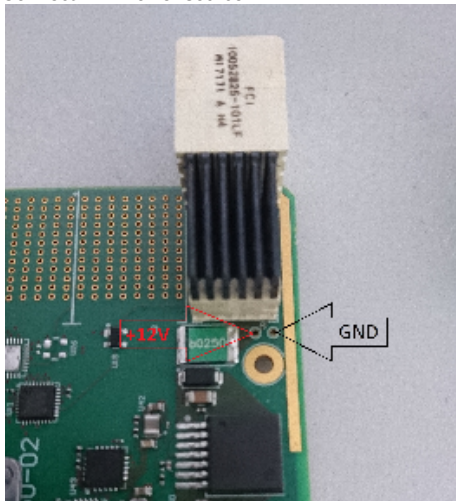
Table of contents

- [Table of contents](#)
- [CPLD Access](#)
- [Available CPLD Firmware](#)
- [General instructions](#)
 - [MAX 10 Firmware Update - General Requirements](#)
 - [MAX 10 Firmware Update - General Procedure](#)

CPLD Access

 Remove TEC0850 from Backplane

- Set DIP S1:1 to OFF
- Connect 12V Power source



- Connect Arrow USB Programmer



Available CPLD Firmware

- - Firmware description
 - [TEC0850 MAX10 - SMB Firmware](#)

General instructions

MAX 10 Firmware Update - General Requirements

- Quartus Prime software, available for free (lite version) on <https://www.intel.de/>
- [Arrow USB Programmer Driver](#)
- Quartus compatible JTAG programmer, for example:
 - TEI0004 - Arrow USB Programmer2 or carrier board with FTDI for JTAG
 - Other JTAG Programmer compatible with Quartus Programmer
- JTAG must be connected to FPGA JTAG
- Correct Firmware (*.pof file) from Download area

MAX 10 Firmware Update - General Procedure

Important:

- Connect only one JTAG device to host PC.
- Close all other JTAG programs.

Procedure:

1. **Enable FPGA JTAG access** (see JTAG section on Firmware description)
2. Connect JTAG
3. Power on system
4. Open Quartus Prime
5. Open Quartus Programmer from top menu: *Tools Programmer*
6. Select from Programmer top menu: *Edit Hardware Setup*
7. Select via the drop down menu: Arrow-USB-Blaster [USB0] (Installation of [Arrow USB Programmer](#) needed) and close the window
8. Click *Add File...*
9. Select correct Firmware from Download area and press *Open*
10. Click *Start* to program the device

Programmer - [Chain1.cdf]*

File Edit View Processing Tools Window Help

Search Intel FPGA

Hardware Setup... Arrow-USB-Blaster [USB0] Mode: JTAG Progress:

☐ Enable real-time ISP to allow background programming when available

File	Device	Checksum	Usercode	Program/ Configure	Verify	Blank- Check	Examine	Security Bit	Erase	ISP CLAMP	IPS File	EKP File
S:/firmware.pof	10M08SAU169	01DE4027	005BEA2C	☒	☐	☐	☐	☐	☐	☐		
CFM0				☒	☐	☐	☐	☐	☐	☐		
UFM				☒	☐	☐	☐	☐	☐	☐		

Start Stop Auto Detect Delete Add File... Change File... Save File Add Device... Up Down

Diagram showing the 10M08SAU169 device with TDI (Test Data In) and TDO (Test Data Out) connections.

More information are available on the Firmware description.