Note: Attention: Work in progress - page under construction

# **UHSDR Firmware**

There are two standard options to load new firmware versions onto a working UHSDR boot loader:

- DfuSe Tool
- USB Stick

ST-Link/V2 debug adapter can also be used to download new firmware

### DfuSe Firmware upgrade

#### Preconditions

- Download latest fw-40SDR.dfu firmware from here.
- Install ST-Micro DeFuse Tool: http://www.st.com/en/development-tools/stsw-stm32080.html
- Connect PC with OVI40 UI via USB to MiniUSB cable. Use MiniUSB plug on OVI40 UI
- ST-Micro DFuse SW installed on PC and running, USB drivers installed, OVI40 UI recognized by PC

#### Procedure

- Press switch "band +" and keep pressed
- supply +5V to OVI40 UI (JP1 pin 28)
- keep pressing "band +" switch until "DFU upgrade mode" appears on LCD screen. You may release the "band +" switch then
- Use DfuSe Tool to load new firmware. Use the "Choose button marked in picture to select new firmware to upload, not the other one. Then use Upload and Verify button, then quit

Last update: 06.02.2018 10:08

Supports Upload Supports Download Can Detach	Manifestation tolerant Accelerated Upload (ST)	DFU Mode: Vendor ID: Procuct ID:
Enter DFU mode/HID detach	Leave DFU mode	Version:
Actions		
Upload Action File:	Upgrade or Verily Action File:	in file:
Choose Upl	load Product ID:	
Transferred data size	Version:	
U KB(U Bytes) of U KB(U Bytes)	Detinico Upgrade duration (Re	move some FFs)



- Reboot
- Test new firmwre

#### **Further Reading**

#### ST-Micro DFuse Tool Beschreibung

### **USB Stick Firmware upgrade**

#### Preconditions

- Download latest fw-40SDR.bin firmware from here.
- Format USB-Stick with FAT or FAT32 file partition. Make sure just in case that USB-stick is otherwise empty
- Copy .bin file to stick. Make sure it is copied as file, not just a link / short-cut
- Recent UHSDR boot loader installed and working

#### Procedure

- Supply +8V on JP1 pin 29 to pwer USB stick
- Push and important hold switch "BAND -"
- Supply +5V on JP1 pin 28 this starts the boot loader
- Wait until "USB drive mode" is displayed on LCD screen, then release "band -" switch
- insert USB stick into large USB port of OVI40 UI

- Wait for FW upload to finish
- 1. Remove +5V, then apply again to reboot OVI40 UI.

## **Further Reading**

https://github.com/df8oe/UHSDR/blob/81dd4afae1a52103b2f1824cba34e2ff35e805ea/mchf-eclipse/us eful\_manuals/bootloader\_doc.md https://github.com/df8oe/UHSDR/wiki/Firmware-Upgrades

# ST-Link/V2 Firmware upgrade

### Preconditions

- Download latest fw-40SDR.bin firmware from here.
- Connect ST-Link/V2 with OVI40 UI and with PC.
- Start STM32 ST-Link Utility on PC
- Recent UHSDR boot loader installed and working
- OVI40 UI powered up

### Procedure

- In ST-Link Utility: Target→Connect
- In ST-Link Utility: Target→Program and Verify
  - $\circ~$  Start address 0x08010000
  - $\circ\,$  Enter file path of .bin file to program
  - Select verify while programming
  - Select "reset after programming"
- Hit "Start" to program device
- After successful programming the UHSDR FW should start

# **Further Reading**

From:

https://www.amateurfunk-sulingen.de/wiki/ - Afu - Wiki des DARC OV Sulingen I40





Last update: 06.02.2018 10:08