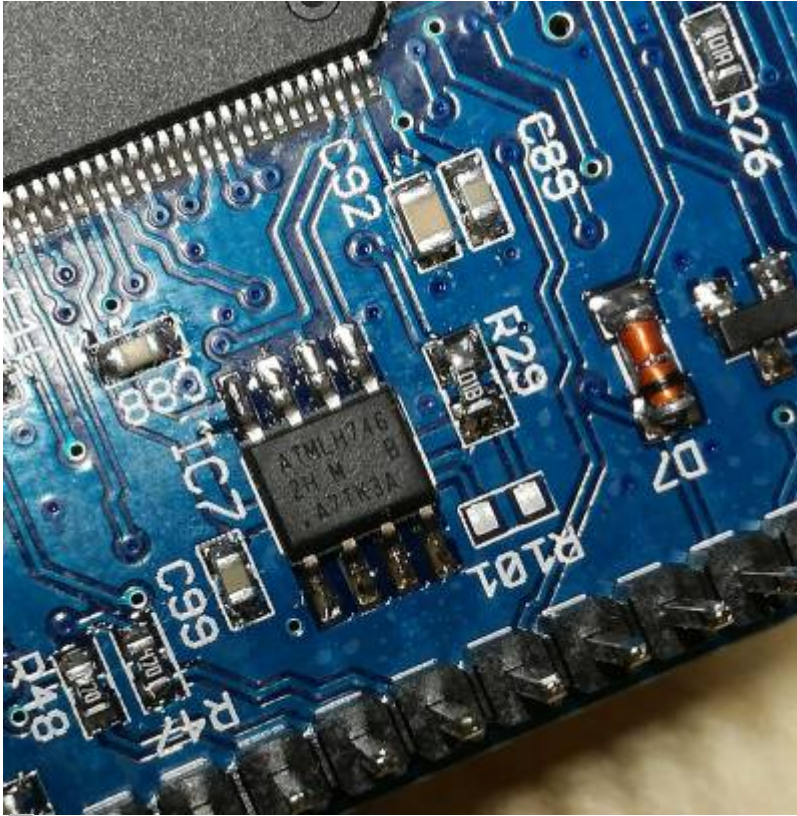


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## UI Board Test & Trouble Shooting

### EEPROM IC7 Pin 1 orientation



EEPROM IC7 position (photo DF9EH)

This is where the dot is printed. Also the edge of the case is slanted near the 1-4 pins. See [here](#)

### Potential short cut next to battery holder

Note: Also ganz wichtig: Wie auf dem Bild zu sehen unbedingt den einen Anschlußpin vor dem Einbau kürzen/abschneiden.



Potential Shortcut (photo DF9EH)

**Attention: STM32 MCU Pin1 Mark**

The MCU seems to have two (!) pin 1 marks. Watch text orientation on MCU to find “real” pin 1.





Orientation of TXCO & MCU (photo DF9EH)

## Missing Audio out

In case of missing audio out: just in case, please check the SW\_12V connection. This is power supply connector for Audio power amplifier stage unlike the mCHF.

## Typical current consumption

Typischer Stromverbrauch: mit Display 280mA und ohne Display sind es 190mA. Die 80mA waren ohne Display direkt nach der Inbetriebnahme.

## In case of problems to flash the MCU

- RTC clock crystal and TXCO are prerequisite for flash programming to work
- Check correct orientation of TXCO (see photo on this page)
- Check 3.3V at C95. If not present then L3 may be defective

## LEDs too bright

With the kit resistors the LEDs are quite bright. DF9EH has reduced the values as follows:

- R36 22k6 (D1 green)
- R37 6k8 (D2 red)
- R116 6k8 (D3 blue)

## "WM8731 not detected"

In case you see this UHSDR error message please check +3V supply for codecs (WM8731) is ok. This +3V supply is generated on RF board.

## MCU does not work, DFU connection / DfuSe not working also

First check that MCU is soldered in in correct orientation (see above "Pin 1").

In order to boot the MCU needs:

- CPU clock (→ check TXCO clock)
- correct reset voltage over time at boot up (→ check voltage over time, check voltage levels at reset pin of MCU)

Only if thos pre-conditions are met will the MCU work with DfuSe or ST-Link/V2 and closed jumper "P6".

Only after bootloader starts correctly will pin voltages for switches, LEDs and LCD be initialized to

some extend., e.g. "Band+" and "Band-" switch.

Also check:

- Does PC recognize the OVI40 UI board connected via USB cable, as USB device in device manager?
- PC USB port working? USB cable ok?
- Check all MCU pins are correctly soldered and no shortcuts exist: Use a thin knife / scalpell / tweezer, go inbetween MCU pins and try to push the pins gently sideways one by one, check if all are soldered to PCB. If not the pin moves slightly.

## USB Stick does not work

Please check +8V supply from Rf-Board, JP1.

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