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OVI40 Short Specification

OVI40-SDR Components

The OVI40-SDR consists of the following components:

- UI Board
- Display und Touchscreen Module
- RF Board
- Housing

UI Board



OVI40 UI and display board (photo DF9EH)

UI board table of features:

PCB Dimensions:	186mm x 66mm
Processor:	STM32F76x (216 MHz Clock), optional STM32H743ZIT6 (400 MHz Clock, pin compatible with STM32F76x)
Audio Codec:	2 x WM8731 @ 96KHz (UHSDR currently using 48 kHz only), separate IQ and Audio (TX and RX possible simultaneously, RF board needs to support this)
Display:	3.5,, 480x320 as default, 3.2" and 2.8,, supported
LCD Interface:	parallel and SPI supported, parallel used as default
Internal memory:	SPI-Flash (Option), SPI-RAM (Option)
External memory:	microSD card
Realtime clock:	integrated Realtime Clock (RTC) part of STM32 MCU, CR2032 Backup Battery
LEDs:	3
External connections:	Mini-USB Type B, USB-Host (USB-A), 3.5mm connector for microphone and PTT, 3.5mm connector for analog input, 3.5mm connector for analog output (line-out is independant from loudspeaker), 3.5mm connector for headset
Internal connections:	30pin connector (mCHF RF Board compatible), 6pin GPIO, 25pin connector (GPIOs, SPI, I2C), ST-Link V2 compatible Debug connector, Debug output, 2 x 4 Pin internal USB connections

Keys:	18 separate keys
Rotary encoders:	4 rotary encoders with integrated key function
Audio output:	Stereo, 2 x 3W at 2 x 4 Ohm with less than 1% THD+N

The 30pin header J1 is downward compatible with the [mCHF](#) RF boards up to and including RF board V0.6. OVI40 UI and mCHF RF board can be used together. An improved OVI40 RF Board is in development.

Display Board

Note: ToDo Photo

Display size:	3.5 inch
Display Type	TN
Resolution:	480 x 320
Controller:	ILI9846 (and compatible)
Human Interface:	Touchscreen
Interface:	SPI and Parallel

2.8 inch oder 3.2 inch 320 x 240 Touchscreen Displays mit IL9325 (or compatible) controller can also be used.

RF Board

Note: ToDo Photo and Data table

Housing

Note: ToDo GHousing text and data

OVI40 is NOT designed to fit in mCHF cases! RF-PCB will carry PCBs on its backside which are ~5cm long so will not fit in such small cases. There will be cases which are especially designed for OVI40 - later Firstly RF-PCB must be ready and some other work must be done - then designing of cases will start

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