FT801/811 controller board

Interfacing 8 bit MCUs to TFT displays with RGB signal input

- The board can be equipped with FT801 or FT811 controller and is designed for connecting all displays with our 40-pin FAMILY-interface.

- Users with little knowledge about driving displays and touchscreens can implement a HMI product with high-quality graphics and touch input, by using a simple MCU.

- FT801/FT811 are using SPI or I2C interface to communicate with the host MCU, they can drive TFT displays via 18-bit RGB interface, read capacitive touchscreens and even support audio output.

- The board includes voltage converter and regulator for the display and its backlight. For optional SD card socket the necessary footprint is on-board.

- The version equipped with MCU can be flashed with Arduino boot loader, to speed up HMI design by adopting a common development platform.

- Typically, at system start the MCU transfers the graphics kept in SD card memory into the display RAM of FT801/FT811. After initial loading of the display controller RAM, the host MCU controls the display contents by writing commands to the display list processed by the controller and responds to touch tags and track touch movements recognized by the controller.

- Boards equipped with FT801 can drive 3.5" and 4.3" displays or other displays with pixel resolution up to 512*512. For larger displays, FT811 must be used with the capability to drive displays with a resolution up to 800*600 pixels. FT811 allows to use the displays not only in landscape but also in portrait mode.

Technical details

Connectors:
- Micro USB
- SD card
- ZIF connectors for TFT display and capacitive touchscreen
- (ZIF connector positions are positioned to match our common interface TFT displays and respective touchscreens)
- 12-pin header for connecting external MCU

Power supply: 5V/250mA via micro USB or 12-pin-connector

PCB size: 97mm x 46mm approx.