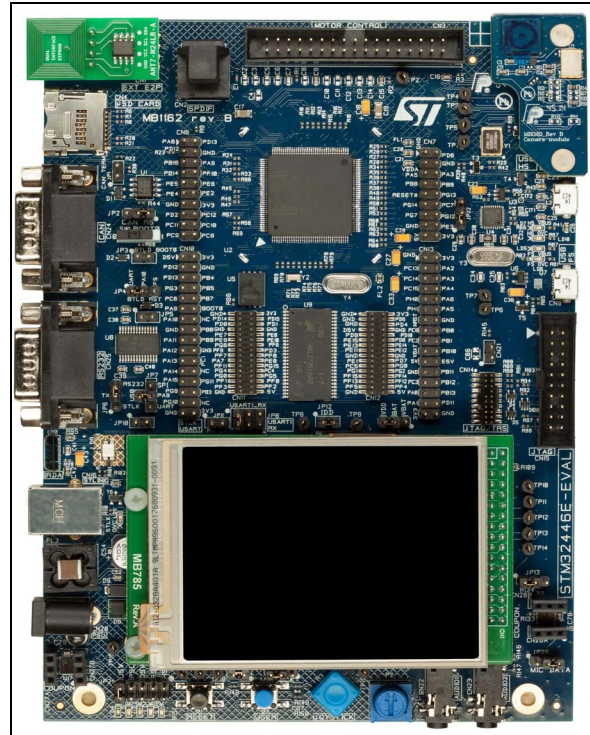# STM32446E-EVAL

Evaluation board with STM32F446ZE MCU

Features

- STM32F446ZET6 microcontroller.
- 3.2" 240 x 320 TFT color LCD with resistive touchscreen
- 2048 x 1536 camera module
- SAI audio DAC, stereo, audio jacks which support headset with microphone
- Stereo digital microphones connected to DAC or to MCU
- Connectors for microphone coupon board
- SPDIF optical input connector
- Joystick with 4-direction control and selector
- Reset and user buttons
- Potentiometer
- 4 color user LEDs
- 32MB QuadSPI Flash
- 4M x 16-bit SDRAM
- 2GB (or more) MicroSD card
- RF EEPROM
- USB OTG HS and FS with micro-AB connectors
- RS232 communication
- CAN 2.0A/B compliant communication
- IrDA transceiver
- Embedded ST-LINK/V2-1
- JTAG/SWD and ETM trace debug support
- Five 5 V power supply options:
  - Power jack
  - ST-LINK USB connector
  - USB FS connector
  - USB HS connector
  - Daughter board
- RTC with backup battery
- Motor control connector

1. Picture not contractual

- Extension connectors for daughter board or wrapping board and memory connectors

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1 Description

The STM32446E-EVAL evaluation board has been designed as a complete demonstration and development platform for the STMicroelectronics ARM® Cortex®-M4 with FPU core-based STM32F446ZET6 microcontroller with SPDIF input, four I2C, four SPI, three I2S, two SAI, two CAN, three 12-bit ADC, two 12-bit DAC, up to 17 timers, USB OTG HS and FS, camera interface, FMC and QuadSPI interfaces, SDIO interface, 512KB Flash memory and 128KB SRAM, JTAG and ETM trace debugging support.

The full range of hardware features on the board can be used to evaluate all peripherals (USB HS & FS, USART, IrDA, CAN, digital microphones, audio codec, ADC and DAC, color LCD glass with touchscreen, SDRAM and QuadSPI Flash memories, I2C EEPROM, RF EEPROM, MicroSD card) and develop user's applications. Extension headers make it possible to easily connect a daughter board specific application.

An ST-LINK/V2-1 is integrated on the board, as embedded in-circuit debugger and programmer for the STM32 MCU.

2 Ordering Information

To order the evaluation board based on the STM32F446ZE MCU, use the order code: STM32446E-EVAL.

3   Revision history

Table 1. Document revision history

Date	Revision	Changes
26-Feb-2015	1	Initial release.

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