

# STMT/8L-EV1

## STM8L evaluation board with touch-sensing library

Data brief

#### **Features**

- Hardware solution designed with an STM8L151 device in a 48-pin LQFP package
- Touch-sensing interface offering 10 touchkeys, 1 wheel and 1 slider
- LCD display to report touchkeys, wheel and slider status and parameters
- Configurable operation: debounce, low-power mode duration, recalibration time-out, wheel/slider resolution.
- Embedded ST-Link interface for user firmware evaluation
- Touch-sensing library featuring:
  - Robust and proven charge-transfer acquisition principle
  - Excellent immunity against conductive noise
  - Supports up to 16 capacitive sensing channels
  - Low BOM with only 1 I/O per channel + 1
    I/O per acquisition group for sampling capacitors
  - Up to 8-bit resolution wheel/slider using 3 channels
  - Fast acquisition time (typically 2 ms for touchkey, 7 ms for wheel/slider)
  - Advanced processing featuring:
    Autocalibration, Debounce filtering,
    Environment control system (ECS),
    Detection exclusion system
  - Free C source code library



#### **Description**

STMT/8L-EV1 is the STM8L evaluation board with a touch-sensing library which enables designers, who are familiar with the standard STM8Lxxx microcontrollers, to create higher-end look-and-feel user interfaces by replacing conventional electromechanical switches with touch-sensing controls. Designers can thus combine touch-sensing functions with traditional MCU features such as communication, LED control, beeper, LCD control, and so on.

The touch-sensing library is a complete, free source-code solution to transform any 8-bit STM8L microcontroller into a capacitive touchkey controller.

Table 1. Device summary

Order code	Reference
T S T IV/T / ST = E V/1	STM8L evaluation board with touch- sensing library

July 2010 Doc ID 17653 Rev 1 1/4

Getting started STMT/8L-EV1

## 1 Getting started

This product allows quick evaluation of the STM8Lxxx devices.

To get started immediately:

- 1. Connect the board to a PC with a USB cable, to power the board.
- 2. Use the 4-direction joystick (U2) to:
  - a) Navigate through the display menus.
  - b) Select items and modify parameters.
- 3. Evaluate the main features of the touch-sensing library: the values and the states of keys, slider and wheel are displayed on the LCD screen.

All technical materials, including user manual, firmware library and examples, are available from www.st.com/touch-sensing\_library.

#### 1.1 System requirements

- Windows PC (2000, XP, Vista)
- USB cable, type A to Mini-B

# 1.2 Development toolchain

ST Visual Develop version 4.1.5 (or newer)

STMT/8L-EV1 Revision history

# 2 Revision history

Table 2. Document revision history

Date	Revision	Changes
15-Jul-2010	1	Initial release.

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4/4 Doc ID 17653 Rev 1

