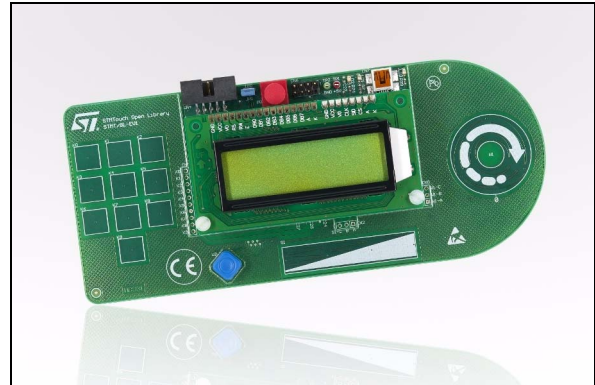# STMT/8L-EV1

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
STMT/8L-EV1	STM8L evaluation board with touch-sensing library

www.st.com

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)

2   Revision history

Table 2.   Document revision history

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

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