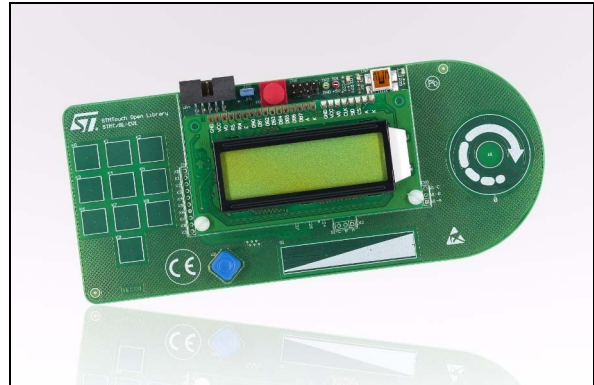


## STM8L evaluation board with touch-sensing library

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 |

# 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](http://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. |

**Please Read Carefully:**

Information in this document is provided solely in connection with ST products. STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, modifications or improvements, to this document, and the products and services described herein at any time, without notice.

All ST products are sold pursuant to ST's terms and conditions of sale.

Purchasers are solely responsible for the choice, selection and use of the ST products and services described herein, and ST assumes no liability whatsoever relating to the choice, selection or use of the ST products and services described herein.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted under this document. If any part of this document refers to any third party products or services it shall not be deemed a license grant by ST for the use of such third party products or services, or any intellectual property contained therein or considered as a warranty covering the use in any manner whatsoever of such third party products or services or any intellectual property contained therein.

**UNLESS OTHERWISE SET FORTH IN ST'S TERMS AND CONDITIONS OF SALE ST DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY WITH RESPECT TO THE USE AND/OR SALE OF ST PRODUCTS INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION), OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.**

**UNLESS EXPRESSLY APPROVED IN WRITING BY AN AUTHORIZED ST REPRESENTATIVE, ST PRODUCTS ARE NOT RECOMMENDED, AUTHORIZED OR WARRANTED FOR USE IN MILITARY, AIR CRAFT, SPACE, LIFE SAVING, OR LIFE SUSTAINING APPLICATIONS, NOR IN PRODUCTS OR SYSTEMS WHERE FAILURE OR MALFUNCTION MAY RESULT IN PERSONAL INJURY, DEATH, OR SEVERE PROPERTY OR ENVIRONMENTAL DAMAGE. ST PRODUCTS WHICH ARE NOT SPECIFIED AS "AUTOMOTIVE GRADE" MAY ONLY BE USED IN AUTOMOTIVE APPLICATIONS AT USER'S OWN RISK.**

Resale of ST products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by ST for the ST product or service described herein and shall not create or extend in any manner whatsoever, any liability of ST.

ST and the ST logo are trademarks or registered trademarks of ST in various countries.

Information in this document supersedes and replaces all information previously supplied.

The ST logo is a registered trademark of STMicroelectronics. All other names are the property of their respective owners.

© 2010 STMicroelectronics - All rights reserved

STMicroelectronics group of companies

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan - Malaysia - Malta - Morocco - Philippines - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America

[www.st.com](http://www.st.com)