32L0538DISCOVERY

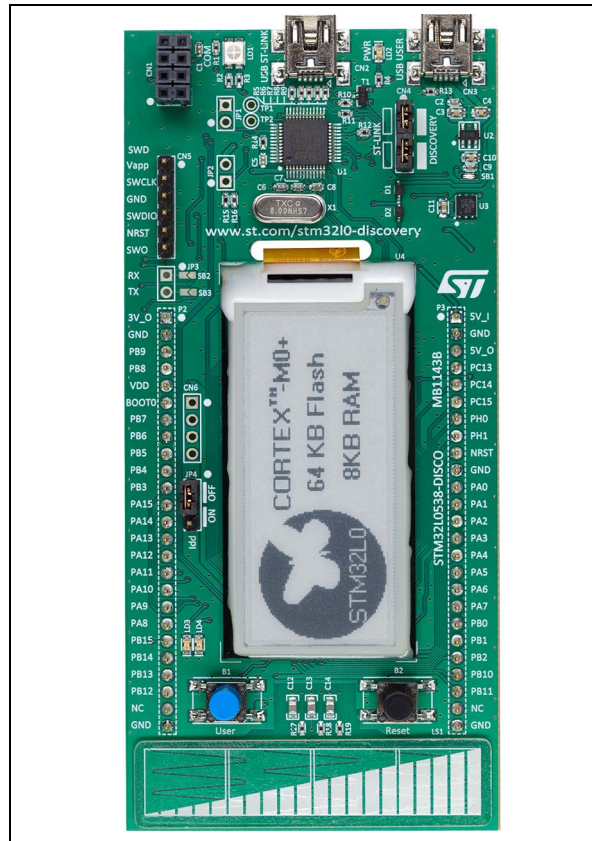## Discovery kit for STM32L0 Series

Features

- STM32L053C8T6 microcontroller featuring 64 KB of Flash memory, 8 KB RAM in an LQFP48 package.

- On-board ST-LINK/V2-1 with selection mode switch to use the kit as a standalone ST-LINK/V2-1 (with SWD connector for programming and debugging)

- mbed™-enabled (mbed.org)

- USB ST-LINK with re-enumeration capability and three different interfaces:
    - virtual com port
    - mass storage
    - debug port

- Board power supply: through USB bus or from an external 5 V supply voltage

- External application power supply: 3 V and 5 V.

- One linear touch sensor or four touchkeys.

- I_{DD} current measurement.

- 2.04" E-paper display, 172x72 pixels

- Four LEDs:
    - LD1 (red/green) for USB communication
    - LD2 (red) for 3.3 V power-on
    - Two user LEDs: LD3 (green), LD4 (red)

- Two pushbuttons (user and reset)

- Extension header for LQFP48 I/Os for a quick connection to the prototyping board and easy probing

- Comprehensive free software including a variety of examples, part of STM32CubeL0 package

Description

The STM32L053 discovery kit helps you to discover the ultra-low-power microcontrollers of the STM32L0 series. It offers everything required for beginners and experienced users to get started quickly and develop applications easily.

Based on an STM32L053C8T6, it includes an ST-LINK/V2-1 embedded debug tool interface, linear touch sensor, touch keys, I_{DD} current measurement, 2.04" E-paper display, NFC connector for PLUG-CR95HF-B board, LEDs, pushbuttons and a USB Mini-B connector.

www.st.com

System requirements

- Windows OS (XP, 7, 8)
- USB standard Type-A to Mini-B cable

Development toolchains

- IAR EWARM (IAR Embedded Workbench®)
- Keil® MDK-ARM™
- GCC-based IDEs (free AC6: SW4STM32, Atollic® TrueSTUDIO®,...)
- ARM® mbed™ online

Demonstration software

The demonstration software is preloaded in the STM32L053xx Flash memory. It uses the linear sensor to select one of the displayed demo application on the e-paper display (EPD): USB mouse demo or I_{DD} measurement demo in different power modes.

The latest versions of the demonstration source code and associated documentation can be downloaded from www.st.com/stm32l0-discovery.

Ordering information

To order the Discovery kit for STM32L053xx microcontrollers, use the order code: STM32L0538-DISCO.

Revision history

Table 1. Document revision history

Date	Revision	Changes
19-June-2014	1	Initial release.
20-Oct-2014	2	Updated title to extend document scope to STM32L0 series. Updated *Section : Features* and *Section : Description* to introduce STM32CubeL0. Added *Section : System requirements* and *Section : Development toolchains*.
12-Jan-2016	3	embed-enabled logo added to the cover page. mbed-enabled added to *Features*. Free AC6 and ARM® mbed™ online added to *Section : Development toolchains*.

IMPORTANT NOTICE – PLEASE READ CAREFULLY