

Discovery kit for STM32F051xx microcontrollers

Data brief

Features

- STM32F051R8T6 microcontroller featuring 64 KB Flash memory, 8 KB RAM in an LQFP64 package
- On-board ST-LINK/V2 with selection mode switch to use the kit as a standalone ST-LINK/V2 (with SWD connector for programming and debugging)
- Board power supply: through USB bus or from an external 5 V supply voltage
- External application power supply: 3 V and 5 V
- Four LEDs:
 - LD1 (red) for 3.3 V power on
 - LD2 (red/green) for USB communication
 - LD3 (green) for PC9 output
 - LD4 (blue) for PC8 output
- Two push buttons (user and reset)
- Extension header for all LQFP64 I/Os for quick connection to prototyping board and easy probing
- An additional board is provided which can be connected to the extension connector for even easier prototyping and probing.
- Comprehensive free software including a variety of examples, part of STM32CubeF0 package or STSW-STM32049 for legacy Standard Libraries usage

Description

The STM32F0DISCOVERY helps you to discover the STM32F051xx Cortex[®]-M0 features and to develop your applications easily. It includes everything required for beginners and experienced users to get started quickly.



Based on the STM32F051R8T6, it includes an ST-LINK/V2 embedded debug tool, LEDs, pushbuttons and an additional prototyping board for easy connection of additional components and modules.

Table 1. Device summary

Order code	Reference
STM32F0DISCOVERY	STM32F0DISCOVERY kit

System requirements

- Windows PC (XP, 7, 8)
- USB type A to Mini-B cable.

Development toolchains

- IAR EWARM (IAR Embedded Workbench[®])
- Keil[®] MDK-ARM[™]
- GCC-based IDE (ARM[®] Atollic[®] TrueSTUDIO[®],...).

Demonstration software

The demonstration software is preloaded in the board Flash memory. It uses the user button B1 to change the blinking frequency of the green LED LD3. Each click on the button is confirmed by the blue LED LD4.

The latest versions of the demonstration source code and associated documentation can be downloaded from www.st.com/stm32f0discovery.

Revision history

Table 2. Document revision history

Date	Revision	Changes
16-Mar-2012	1	Initial release.
29-Sep-2014	2	Updated title. Replaced STM32F0 by STM32F051xx in Section : Description . Updated Section : Features and Section : Description to introduce STM32CubeF0 and STSW-STM32049. Updated Section : System requirements and Section : Development toolchains .

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