32F429IDISCOVERY

Discovery kit with STM32F429ZI MCU

Data brief

Features

- STM32F429ZIT6 microcontroller featuring 2 Mbytes of Flash memory, 256 Kbytes of RAM in an LQFP144 package
- On-board ST-LINK/V2 on STM32F429I-DISCO or ST-LINK/V2-B on STM32F429I-DISC1
- mbed™-enabled (mbed.org) with ST-LINK/V2-B only
- USB functions:
  - debug port
  - virtual COM port with ST-LINK/V2-B only
  - mass storage with ST-LINK/2-B only
- Board power supply: through the USB bus or from an external 3 V or 5 V supply voltage
- 2.4" QVGA TFT LCD
- 64-Mbit SDRAM
- L3GD20, ST MEMS motion sensor 3-axis digital output gyroscope
- Six LEDs:
  - LD1 (red/green) for USB communication
  - LD2 (red) for 3.3 V power-on
  - Two user LEDs: LD3 (green), LD4 (red)
  - Two USB OTG LEDs: LD5 (green) VBUS and LD6 (red) OC (over-current)
- Two push-buttons (user and reset)
- USB OTG with micro-AB connector
- Extension header for LQFP144 I/Os for a quick connection to the prototyping board and an easy probing
- Comprehensive free software including a variety of examples, part of STM32CubeF4 package or STSW-STM32138 for legacy standard libraries usage
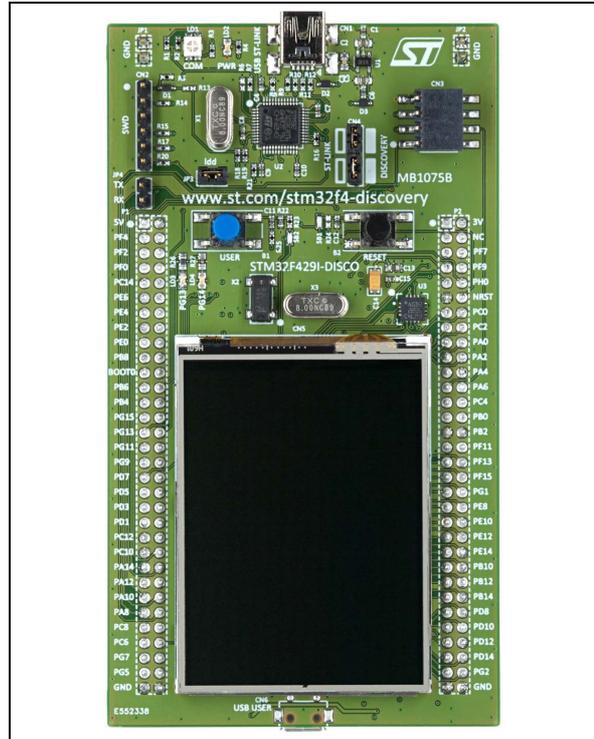
1. Picture not contractual.

Description

The STM32F429 Discovery kit (32F429IDISCOVERY) allows users to easily develop applications with the STM32F429 high-performance MCUs with ARM® Cortex®-M4 core.

It includes an ST-LINK/V2 or ST-LINK/V2-B embedded debug tool, a 2.4" QVGA TFT LCD, an external 64-Mbit SDRAM, an ST MEMS gyroscope, a USB OTG micro-AB connector, LEDs and push-buttons.

System requirements

- Windows® OS (XP, 7, 8)
- USB 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 board Flash memory. It displays on the screen icons to run different applications: clock/calendar, a game, a video player and an image browser, performance monitoring and system information.

The latest versions of the demonstration source code and associated documentation can be downloaded from the www.st.com/stm32f4-discovery webpage.

Ordering information

To order the Discovery kit for the STM32F429 line of microcontrollers, refer to *Table 1*.

Table 1. List of the order codes

Order code	ST-LINK version
STM32F429I-DISCO	ST-LINK/V2
STM32F429I-DISC1	ST-LINK/V2-B (mbed-enabled)

Revision history

Table 2. Document revision history

Date	Revision	Changes
06-Sep-2013	1	Initial version.
29-Sep-2014	2	Updated *Section : Features* and *Section : Description* to introduce STM32cubeF4 and STSW-STM32138. Updated ST MEMS feature. Updated *Section : System requirements* and *Section : Development toolchains*.
23-Oct-2015	3	Updated *Section : Features*, *Section : Description*, *Section : Ordering information*.

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