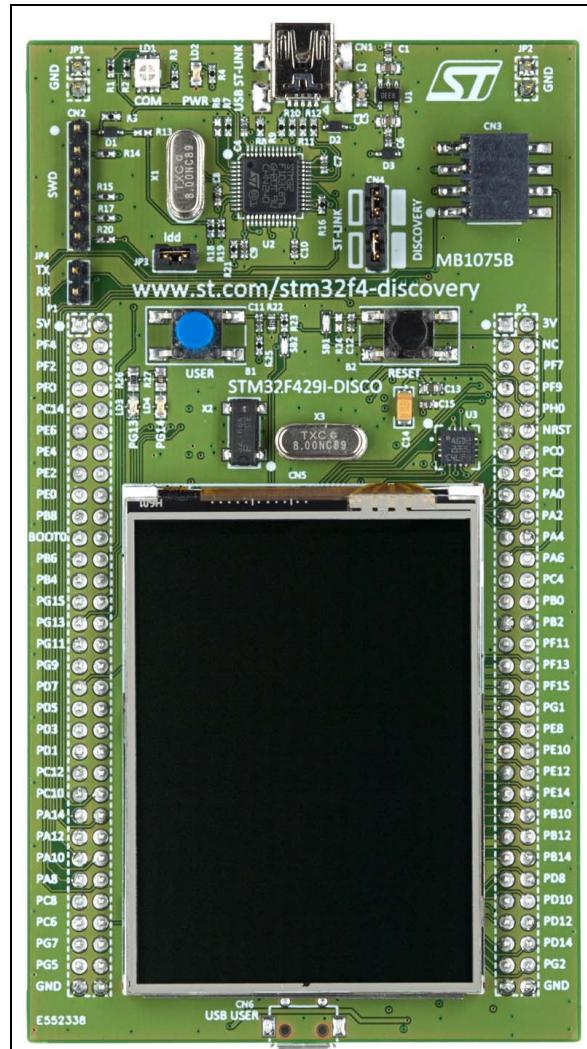


## Features

- STM32F429ZIT6 microcontroller featuring 2 Mbytes of Flash memory, 256 Kbytes of RAM in an LQFP144 package
- 2.4" QVGA TFT LCD
- USB OTG with Micro-AB connector
- ISG4250D, 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) V<sub>BUS</sub> and LD6 (red) OC (over-current)
- Two push-buttons (user and reset)
- 64-Mbit SDRAM
- Extension header for LQFP144 I/Os for a quick connection to the prototyping board and an easy probing
- On-board ST-LINK/V2-B
- USB functions:
  - Debug port
  - Virtual COM port
  - Mass storage
- Mbed Enabled™ (see <http://mbed.org>)
- Board power supply: through the USB bus or from an external 3 V or 5 V supply voltage
- Comprehensive free software including a variety of examples, part of STM32CubeF4 MCU Package or STSW-STM32138, for using legacy standard libraries



Picture is not contractual.

## Description

The 32F429IDISCOVERY Discovery kit leverages the capabilities of the STM32F429 high-performance microcontrollers, to allow users to develop rich applications easily with advanced graphic user interfaces.



# 1 Ordering information

To order the Discovery kit with the STM32F429ZI microcontroller, refer to [Table 1](#).

**Table 1. Ordering information**

| Order code                      | Board reference | User manual | Target STM32  |
|---------------------------------|-----------------|-------------|---------------|
| STM32F429I-DISC1 <sup>(1)</sup> | MB1075          | UM1670      | STM32F429ZIT6 |

1. Mbed Enabled™ STM32F429I-DISC1 with ST-LINK/V2-B replaces obsolete STM32F429I-DISCO with ST-LINK/V2.

## 1.1 Product marking

Evaluation tools marked as 'ES' or 'E' are not yet qualified and therefore they are not ready to be used as reference design or in production. Any consequences deriving from such usage will not be at ST charge. In no event, ST will be liable for any customer usage of these engineering sample tools as reference design or in production.

'E' or 'ES' marking examples of location:

- On the targeted STM32 that is soldered on the board (for illustration of STM32 marking, refer to the section "Package information" of the STM32 datasheet available at [www.st.com](http://www.st.com)).
- Next to the evaluation tool ordering part number that is stuck or silk-screen printed on the board.

## 1.2 Codification

The meaning of the codification is explained in [Table 2](#).

**Table 2. Codification explanation**

| 32XXYYZDISCOVERY | Description                                  | Example: 32F429IDISCOVERY |
|------------------|--|---------------------------|
| 32XX             | MCU series in STM32 32-bit Arm Cortex MCUs   | STM32F4 Series            |
| YY               | MCU product line in the series               | STM32F429                 |
| Z                | STM32 Flash memory size:<br>– I for 2 Mbytes | 2 Mbytes                  |
| DISCOVERY        | Discovery kit                                | Discovery kit             |

## 2 Development environment

### 2.1 System requirements

- Windows® OS (7, 8, or 10)
- USB Type-A to Mini-B cable

### 2.2 Development toolchains

- IAR™ - EWARM<sup>(a)</sup>
- Keil® - MDK-ARM<sup>(a)</sup>
- STMicroelectronics - STM32CubeIDE
- Arm® Mbed™<sup>(b)</sup> online

### 2.3 Demonstration software

The demonstration software, included in the STM32Cube MCU Package, is preloaded in the STM32 Flash memory for easy demonstration of the device peripherals in standalone mode. The latest versions of the demonstration source code and associated documentation can be downloaded from the [www.st.com/stm32f4-discovery](http://www.st.com/stm32f4-discovery) web page.

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- a. On Windows® only.
  - b. Arm and Mbed are registered trademarks or trademarks of Arm Limited (or its subsidiaries) in the US and or elsewhere.

## Revision history

Table 3. Document revision history

| Date        | Revision | Changes   |
|-------------|----------|---|
| 06-Sep-2013 | 1        | Initial version.  |
| 29-Sep-2014 | 2        | Updated <i>Features</i> and <i>Description</i> to introduce STM32cubeF4 and STSW-STM32138.<br>Updated ST MEMS feature.<br>Updated <i>System requirements</i> and <i>Development toolchains</i> .  |
| 23-Oct-2015 | 3        | Updated <i>Features</i> , <i>Description</i> , and <i>Product marking</i> .   |
| 28-Oct-2016 | 4        | Updated <i>Features</i> and <i>Description</i> to inform that the new STM32F429I-DISC1 order code has replaced the old STM32F429I-DISCO order code.   |
| 22-Apr-2020 | 5        | Removed all references to obsolete STM32F429I-DISCO.<br>Updated ST MEMS details in <i>Features</i> .<br>Reorganized the entire document:<br>– Updated <i>Features</i> , <i>Description</i> , <i>Ordering information</i> , and <i>Development toolchains</i><br>– Added <i>Codification</i> |

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