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

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>
<thead>
<tr>
<th>Order code</th>
<th>ST-LINK version</th>
</tr>
</thead>
<tbody>
<tr>
<td>STM32F429I-DISCO</td>
<td>ST-LINK/V2</td>
</tr>
<tr>
<td>STM32F429I-DISC1</td>
<td>ST-LINK/V2-B (mbed-enabled)</td>
</tr>
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</table>
## Revision history

### Table 2. Document revision history

<table>
<thead>
<tr>
<th>Date</th>
<th>Revision</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>06-Sep-2013</td>
<td>1</td>
<td>Initial version.</td>
</tr>
</tbody>
</table>
| 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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