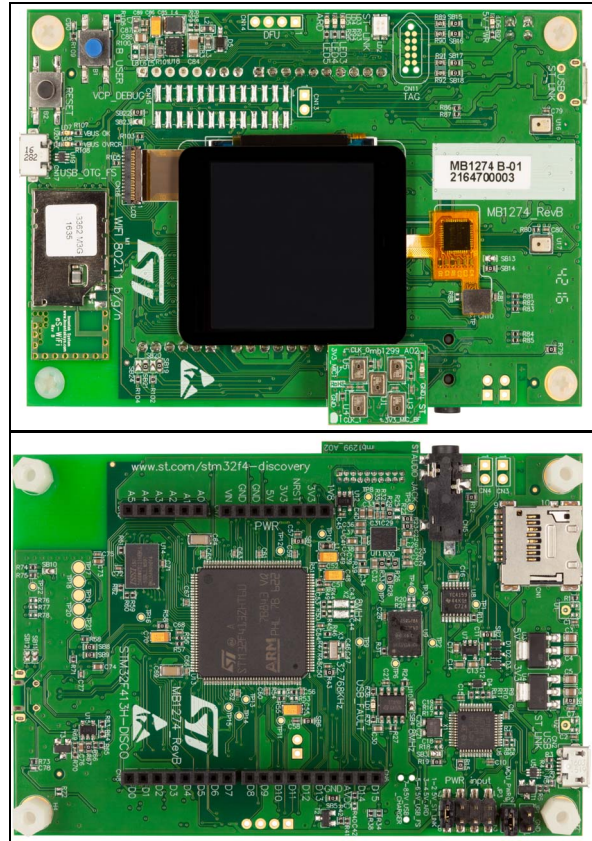


### Features

- STM32F413ZHT6 microcontroller featuring 1.5 Mbytes of Flash memory and 320 Kbytes of SRAM, in LQFP144 package
- On-board ST-LINK/V2-1 supporting USB re-enumeration capability
- USB ST-LINK functions:
  - Virtual COM port
  - Mass storage
  - Debug port
- 240x240-pixel LCD with parallel interface and touch-panel connector
- 8-Mbit PSRAM; 512K word x 16bits
- 128-Mbit Quad-SPI Flash memory
- I<sup>2</sup>S audio codec
- Jack connector for Audio line with microphone input and stereo output
- Two on-board ST-MEMS microphones
- Connector extension for up to 5-MEMS microphones.
- USB OTG FS with Micro-AB connector
- Connector for microSD™ card
- Integrated Wi-Fi® module 802.11 b/g/n
- Two push-buttons (user and reset)
- Two user LEDs: one green and one red
- Arduino™ Uno V3 connectors
- Four power supply options:
  - ST LINK/V2-1
  - USB FS connector
  - 5 V from Arduino™ Uno V3
  - USB charger
- Comprehensive free software including a variety of examples, part of the STM32Cube package
- Support of a wide choice of integrated development environments



1. Pictures are not contractual.

### Description

The 32F413HDISCOVERY Discovery kit allows users to develop applications with the STM32F4 Series microcontrollers based on ARM® Cortex®-M4 core.

The 32F413HDISCOVERY Discovery kit enables a wide diversity of applications, taking benefit from audio, multi-sensor support, graphics, security, video and high-speed connectivity features.

The Arduino™ Uno V3 connectivity support provides unlimited expansion capabilities with a large choice of specialized add-on boards.

## System requirements

- Windows® OS (XP, 7, 8 and 10) or Linux® or MacOS™
- USB Type-A to Micro-B cable

## Development toolchains

- ARM® Keil®: MDK-ARM<sup>(a)</sup>
- IAR™: EWARM<sup>(a)</sup>
- GCC-based IDEs: free SW4STM32 from AC6

## Demonstration software

The demonstration software 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) webpage.

## Ordering information

To order the 32F413HDISCOVERY Discovery kit, refer to [Table 1](#):

**Table 1. Ordering information**

Order code	Target STM32
STM32F413H-DISCO	STM32F413ZHT6

---

a. On Windows® only.

## Revision history

Table 2. Document revision history

Date	Revision	Changes
13-Dec-2016	1	Initial release.
05-Apr-2017	2	Updated <i>Features</i> .

**IMPORTANT NOTICE – PLEASE READ CAREFULLY**

STMicroelectronics NV and its subsidiaries (“ST”) reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST’s terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers’ products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2017 STMicroelectronics – All rights reserved