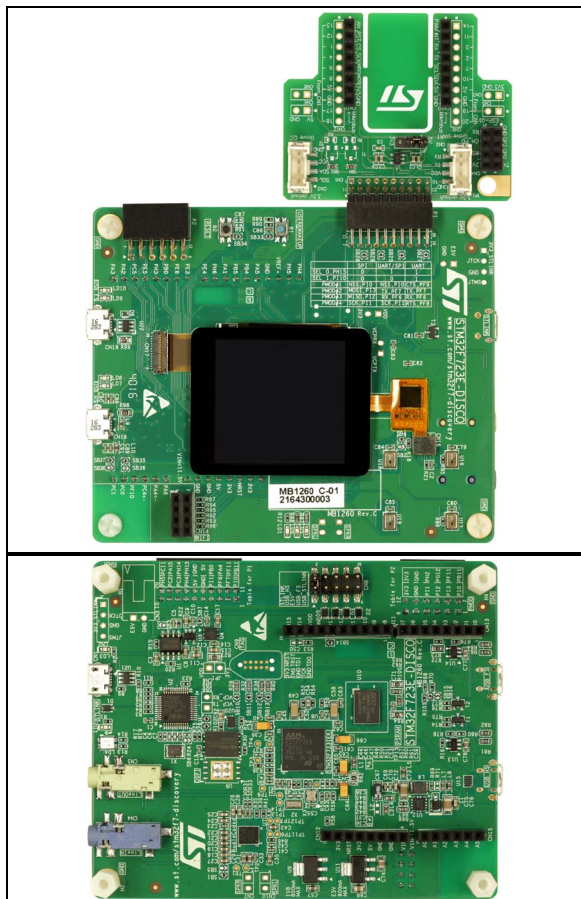# 32F723EDISCOVERY

Discovery kit with STM32F723IE MCU

Features

- STM32F723IEK6 microcontroller featuring 512 Kbytes of Flash memory and 176+16 Kbytes of RAM, in BGA176 package
- On-board ST-LINK/V2-1 supporting USB re-enumeration capability
- USB ST-LINK functions:
    - Virtual COM port
    - Mass storage
    - Debug port
- TFT LCD 240x240 pixels with touch panel
- SAI audio codec
- Stereo 3.5mm jack connector for audio line input
- Stereo 3.5mm jack connector for headphone
- Stereo speaker outputs
- Four ST-MEMS microphones
- Two push-buttons (user and reset)
- 512-Mbit Quad-SPI Flash memory
- 8-Mbit external PSRAM
- USB OTG HS with Micro-AB connector
- USB OTG FS with Micro-AB connector
- Five power supply options:
    - ST LINK/V2-1
    - USB HS connector
    - USB FS connector
    - 5V from Arduino™ Uno V3 or external connector
    - USB charger
- Power supply output for external applications: 3.3V or 5V
- ESP-01 Wi-Fi module connector
- Arduino™ Uno V3 connectors
- PMOD connector
- STMod+ connector

1. From top to bottom: top view of the 32F723EDISCOVERY Discovery kit with the Fanout board connected and bottom view of the 32F723EDISCOVERY Discovery kit without the Fanout board. Pictures are not contractual.

- Fanout board (included inside the board package) compatible with MikroElektronika Click boards, ESP-01 and Seeed Studio™ Grove modules. Provision for headers for direct breadboard plug-in.
- Comprehensive free software including a variety of examples, part of the STM32Cube package
- Support of a wide choice of integrated development environments

Description

The 32F723EDISCOVERY Discovery kit allows users to develop applications with the microcontrollers of the STM32F7 Series, based on ARM® Cortex®-M7 core.

The 32F723EDISCOVERY Discovery kit enables a wide diversity of applications, taking benefit from audio, multi-sensor support, graphics, security, video and high-speed connectivity features.

The PMOD, STMod+ and 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) or Linux 64-bit or Mac OS® X
- Type-A to Micro-B USB cable

Development toolchains

- ARM® Keil®: MDK-ARM[a]
- IAR™: EWARM[a]
- 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 with the associated documentation can be downloaded from the www.st.com/stm32f7-discovery webpage.

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a. On Windows® only.

Ordering information

To order the 32F723EDISCOVERY Discovery kit, refer to *Table 1*:

Table 1. Ordering information

Order code	Target STM32
STM32F723E-DISCO	STM32F723IEK6

Revision history

Table 2. Document revision history

Date	Revision	Changes
17-Jan-2017	1	Initial release.

IMPORTANT NOTICE – PLEASE READ CAREFULLY