Discovery kit with STM32F469NI MCU

Board top and bottom views. Pictures are not contractual.

Product status link
32F469IDISCOVERY

Features

- STM32F469NIH6 microcontroller with 2 Mbytes of Flash memory and 324 Kbytes of RAM, in BGA216 package
- 4" RGB 800×480 pixel TFT color LCD with MIPI DSI^{SM} interface and capacitive touch screen
- USB OTG FS
- SAI audio DAC
- 3 ST-MEMS digital microphones
- 128-Mbit Quad-SPI NOR Flash memory
- 4 M×32bit SDRAM
- Reset and wake-up push-buttons
- 4 color user LEDs
- Board connectors:
  - microSD™ card
  - USB with Micro-AB
  - Stereo headphone output jack
  - I^{2}C expansion connector
  - ARDUINO® Uno V3 expansion connectors
  - 2.54 mm pitch expansion connector
- Flexible power-supply options: ST-LINK, USB V$_{BUS}$ or external sources
- Comprehensive free software libraries and examples available with the STM32Cube MCU Package
- On-board ST-LINK/V2-1 debugger/programmer with USB re-enumeration capability: mass storage, Virtual COM port, and debug port
- Support of a wide choice of Integrated Development Environments (IDEs) including IAR™, Keil®, STM32CubeIDE, and Arm® Mbed™

Description

With the STM32F469 Discovery kit (32F469IDISCOVERY), users develop applications easily on the STM32F469 high-performance MCUs with Arm® Cortex®-M4 core and Chrom-ART Accelerator. The Discovery kit enables a wide range of use cases taking advantage of premium graphics, audio, multisensor support, WVGA color display, security, memory extension and connectivity features.

An embedded ST-LINK/V2-1 debugger/programmer is included. Specialized add-on boards can be connected by means of the ARDUINO® Uno or expansion connectors.

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For further information contact your local STMicroelectronics sales office.

www.st.com

1   Ordering information

To order the 32F469IDISCOVERY Discovery kit, refer to Table 1. For a detailed description, refer to its user manual on the product web page. Additional information is available from the datasheet and reference manual of the target microcontroller.

Table 1. List of available products

Order code	Board reference	User manual	Target STM32
STM32F469I-DISCO	MB1189	UM1932	STM32F469NIH6U

1.1   Product marking

Evaluation tools marked as "ES" or "E" are not yet qualified and therefore 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 designs or in production.

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

- On the targeted STM32 that is soldered on the board (For an illustration of STM32 marking, refer to the STM32 datasheet "Package information" paragraph at the *www.st.com* website).
- Next to the evaluation tool ordering part number that is stuck or silk-screen printed on the board.

This board features a specific STM32 device version, which allows the operation of any bundled commercial stack/library available. This STM32 device shows a "U" marking option at the end of the standard part number and is not available for sales.

In order to use the same commercial stack in his application, a developer may need to purchase a part number specific to this stack/library. The price of those part numbers includes the stack/library royalties.

1.2   Codification

The meaning of the codification is explained in Table 2.

Table 2. Codification explanation

STM32F4XXY-DISCO	Description	Example: STM32F469I-DISCO
STM32F4	MCU series in STM32 32-bit Arm Cortex MCUs	STM32F4 Series
XX	MCU product line in the series	STM32F469
Y	STM32 Flash memory size: - I for 2 Mbytes	2 Mbytes
DISCO	Discovery kit	Discovery kit

The order code is mentioned on a sticker placed on the top or bottom side of the board.

2 Development environment

2.1 System requirements

- Windows® OS (7, 8 and 10), Linux® 64-bit, or macOS®
- USB Type-A to Mini-B cable

Note: *macOS® is a trademark of Apple Inc. registered in the U.S. and other countries.*

All other trademarks are the property of their respective owners.

2.2 Development toolchains

- IAR™ - EWARM[1]
- Keil® - MDK-ARM[1]
- STMicroelectronics - STM32CubeIDE
- Arm® Mbed™[2] online[3] (see mbed.org)

Note: 1. *On Windows® only.*

2. *Arm and Mbed are registered trademarks or trademarks of Arm Limited (or its subsidiaries) in the US and or elsewhere.*

3. *Refer to the www.mbed.com website and to the "Ordering information" section to determine which order codes are supported.*

2.3 Demonstration software

The demonstration software, included in the STM32Cube MCU Package corresponding to the on-board microcontroller, is preloaded in the STM32 Flash memory and in the external on-board 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 *www.st.com*.

Revision history

Table 3. Document revision history

Date	Version	Changes
11-Sep-2015	1	Initial release.
21-Apr-2020	2	Removed *Technology partners*. Revised the entire document: • Updated Features, Description, Ordering information, Development toolchains and Demonstration software • Added Product marking and Codification

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