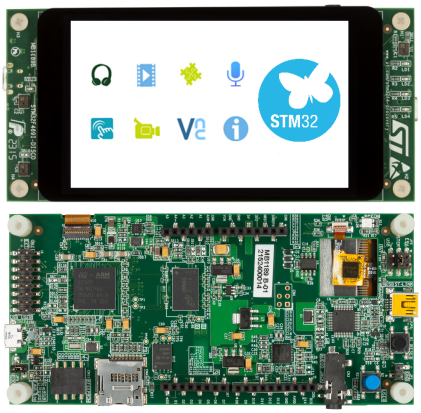
32F469IDISCOVERY

Data brief

Discovery kit with STM32F469NI MCU



32F469IDISCOVERY 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 a BGA216 package
- 4” RGB 800×480 pixel TFT color LCD with MIPI DSI® interface and capacitive touch panel
- 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^2C expansion
  - ARDUINO® Uno V3 expansion
  - 2.54 mm pitch expansion
- Flexible power-supply options: ST-LINK USB V_{BUS}, USB connector, 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 Embedded Workbench®, MDK-ARM, and STM32CubeIDE

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.

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	STM32F469NIH6

1.1 Product marking

The stickers located on the top or bottom side of the PCB provide product information:

- Product order code and product identification for the first sticker
- Board reference with revision, and serial number for the second sticker

On the first sticker, the first line provides the product order code, and the second line the product identification.

On the second sticker, the first line has the following format: “MBxxxx-Variant-yzz”, where “MBxxxx” is the board reference, “Variant” (optional) identifies the mounting variant when several exist, "y" is the PCB revision and "zz" is the assembly revision, for example B01. The second line shows the board serial number used for traceability.

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.

Some boards feature 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.

To use the same commercial stack in their applications, the developers 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

STM32XXYYZ-TTTTT	Description	Example: STM32F469I-DISCO
STM32XX	MCU series in STM32 32-bit Arm Cortex MCUs	STM32F4 Series
YY	MCU product line in the series	STM32F469
Z	STM32 flash memory size: • I for 2 Mbytes	2 Mbytes
TTTTT	Toolkit: • DISCO: Discovery kit	Discovery kit

2 Development environment

The 32F469IDISCOVERY Discovery kit runs with the STM32F469NIH6 32-bit microcontroller based on the Arm® Cortex®-M4 processor.

Note: Arm is a registered trademark of Arm Limited (or its subsidiaries) in the US and/or elsewhere.

2.1 System requirements

- Multi-OS support: Windows® 10, Linux® 64-bit, or macOS®
- USB Type-A or USB Type-C® to Mini-B cable

Note: macOS® is a trademark of Apple Inc., registered in the U.S. and other countries and regions.
Linux® is a registered trademark of Linus Torvalds.
All other trademarks are the property of their respective owners.

2.2 Development toolchains

- IAR Systems® - IAR Embedded Workbench®(1)
- Keil® - MDK-ARM(1)
- STMicroelectronics - STM32CubeIDE

1. *On Windows® only.*

Revision history

Table 3. **Document revision history**

Date	Revision	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*
31-Mar-2022	3	Updated the MCU reference in Ordering information. Removed the *Demonstration software* section. Removed the references to Arm® Mbed™.