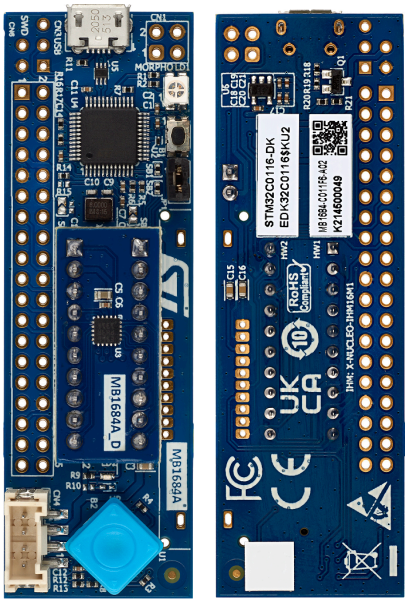
STM32C0116-DK

Data brief

Discovery kit with STM32C011F6 MCU



STM32C0116-DK top and bottom views. Pictures are not contractual.

Features

- STM32C011F6 Arm® Cortex®-M0+ core-based microcontroller with 32 Kbytes of Flash memory and 6 Kbytes of RAM, in a UFQFPN20 package
- User LED
- Reset push-button
- 5-way joystick using a single ADC input pin
- Individual STM32 UFQFPN20 to DIL20 module
- Board connectors:
  - USB Micro-B
  - DIL20 socket
  - Dedicated LCD footprint
  - Grove (UART)
  - 2 x 10-pin headers for MCU daughterboard
  - Extension connectors
- On-board ST-LINK/V2-1 debugger/programmer with USB re-enumeration capability: mass storage and debug port
- Comprehensive free software libraries and examples available with the STM32Cube MCU Package
- Support of a wide choice of Integrated Development Environments (IDEs) including IAR Embedded Workbench®, MDK-ARM, and STM32CubeIDE

Product status link
STM32C0116-DK

Description

The STM32C0116-DK Discovery kit helps to discover features of the STM32C0 Series microcontroller in a UFQFPN20 package. This Discovery kit features one UFQFPN20 to DIL20 module designed with the STM32C011F6 microcontroller and allows the user to develop and share applications. It includes an on-board ST-LINK/V2-1 to debug and program the embedded STM32 microcontroller.

The STM32C0116-DK Discovery kit is operated by plugging it into a PC through a standard USB Type-A or USB Type-C® to Micro-B cable.

1 Ordering information

To order the STM32C0116-DK 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
STM32C0116-DK	• MB1684	UM2970	STM32C011F6U6

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.

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

STM32C0XXY-DK	Description	Example: STM32C0116-DK
STM32C0	MCU series in STM32 32-bit Arm Cortex MCUs	STM32C0 Series
XX	MCU product line in the series	STM32C0x1 product line
Y	STM32 Flash memory size: • 6 for 32 Kbytes	32 Kbytes
DK	Discovery kit	Discovery kit

2 Development environment

The STM32C0116-DK board runs with the STM32C011F6U6 32-bit microcontroller based on the Arm® Cortex®-M0+ core.

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 Micro-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
18-Jan-2022	1	Initial release.