# STM32G071B-DISCO

## STM32G0 Discovery kit for USB Type-C™ and Power Delivery

## Features

- STM32G071RBT6 microcontroller featuring 128 Kbytes of Flash memory and 32 Kbytes of RAM in LQFP64 package
- Plastic case
- 1" 128 x 64 pixels OLED LCD module with SPI interface
- USB Type-C™ interface plug cable and receptacle connector accessible by door with reed sensor detection
- 3 bidirectional current and power monitors with $I^2C$ interface to measure $V_{BUS}$, CC1 and CC2 protected and isolated lines
- On-board DC/DC converter to sustain power supply with $V_{BUS}$ varying from 3 V to 20 V (+/- 5 %)
- 4 user status LEDs about USB Type-C™ configuration
- 3 LEDs for power and ST-LINK communication
- 4-way joystick with selection button
- 1 reset push-button
- Board external connectors:
  - USB Type-C™ plug cable
  - USB Type-C™ receptacle connector
  - 8-pin user extension connector including ADC, SPI, USART and $I^2C$ communication signals
  - USB with Micro-AB (ST-LINK)
- Board internal connectors:
  - 2 x 8-pin GPIOs free pins from microcontroller (accessible internally when case is removed)
  - USB Type-C™ test points for main signals
- Flexible power-supply options: ST-LINK USB $V_{BUS}$ or USB Type-C™ $V_{BUS}$
- On-board ST-LINK/V2-1 debugger/programmer with USB enumeration capability: mass storage, Virtual COM port and debug port


Picture is not contractual.

- Comprehensive free software libraries and examples available with the STM32Cube™ MCU Package
- Support of a wide choice of integrated development environments (IDEs), including IAR™, Keil® and GCC-based IDEs

## Description

The STM32G071B-DISCO Discovery board is a demonstration and development platform for the STMicroelectronics Arm® Cortex® -M0+ core-based STM32G071RB USB Type-C™ and Power Delivery microcontroller. The STM32G071B-DISCO Discovery board is presented with all necessary interfaces for easy connection and interoperability with other USB Type-C™ devices. The STM32G071B-DISCO Discovery board is intended for discovery and display of USB Type-C™ port characteristics such as data role, power role, $V_{BUS}$ and $I_{BUS}$ monitoring.

It offers an advanced user mode when associated with the STM32CubeMonUCPD software GUI and can be used as a USB Type-C™ and Power Delivery analyzer.

# General information

The STM32G071B-DISCO embeds an STM32 32-bit microcontroller based on the Arm[®](a) Cortex[®]-M0+ processor.

# System requirements

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

# Development toolchains

- Keil[®] MDK-ARM[(c)]
- IAR™ EWARM[(c)]
- GCC-based IDEs

# Demonstration software

The demonstration software, included in the STM32Cube MCU Package corresponding to the on-board microcontroller, 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 *www.st.com*.

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

b. macOS[®] is a trademark of Apple Inc. registered in the U.S. and other countries.

c. On Windows[®] only

# Ordering information

To order the STM32G071B-DISCO Discovery board, refer to *Table 1*:

**Table 1. Ordering information**

| Order code | Target STM32 |
|---|---|
| STM32G071B-DISCO | STM32G071RBT6 |

# Revision history

**Table 2. Document revision history**

| Date | Revision | Changes |
|------|----------|---------|
| 13-Dec-2018 | 1 | Initial version |

**IMPORTANT NOTICE – PLEASE READ CAREFULLY**

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