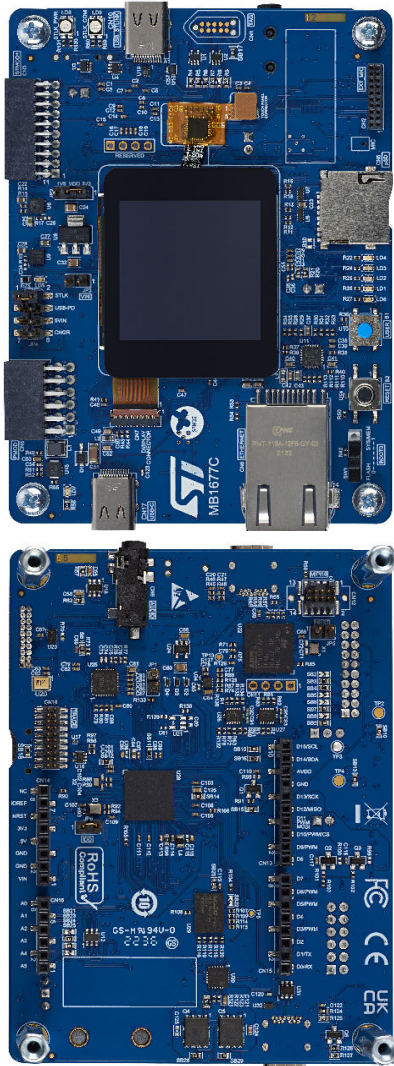


Discovery kit with STM32H573II MCU



STM32H573I-DK top and bottom views.
Pictures are not contractual.

Features

- **STM32H573IIK3Q** microcontroller based on the Arm® Cortex®-M33 core with Arm® TrustZone®, featuring 2 Mbytes of flash memory, 640 Kbytes of SRAM, and cryptography in a UFBGA176 package SMPS option
- 1.54" TFT 240×240 pixels color LCD with LED backlight and touch panel
- User USB with USB 2.0 full-speed interface, sink/source up to 15 W (5 V / 3 A)
- Ethernet 10/100 Mbit/s, compliant with IEEE-802.3-2002
- SAI audio codec
- One ST-MEMS digital microphone
- 512-Mbit Octo-SPI NOR flash memory
- Fan-out daughterboard
- Wi-Fi® 802.11 b/g/n compliant
- Four user LEDs
- User and reset push-buttons
- Board connectors:
 - ST-LINK USB Type-C®
 - User USB Type-C®
 - Ethernet RJ45
 - Stereo headset jack including analog microphone input
 - microSD™ card
 - Tag-Connect™ 10-pin footprint
 - Arm® Cortex® 10-pin 1.27 mm pitch debug connector (SWD/JTAG)
 - Arm® Cortex® MIPI20 connector (SWD/JTAG/TRACE)
 - ARDUINO® Uno V3 expansion
 - STMod+ expansion
 - Pmod™ Type-2A and Type-4A expansion
 - Audio MEMS daughterboard expansion
- Flexible power-supply options: ST-LINK USB V_{BUS}, USB connector, or external sources
- On-board STLINK-V3EC debugger/programmer with USB re-enumeration capability: mass storage, Virtual COM port, and debug port
- Comprehensive free software libraries and examples available with the **STM32CubeH5** MCU Package
- Support of a wide choice of Integrated Development Environments (IDEs) including IAR Embedded Workbench®, MDK-ARM, and STM32CubeIDE

Product status link

[STM32H573I-DK](#)

1 Description

The [STM32H573I-DK](#) Discovery kit is a complete demonstration and development platform for the [STM32H573IHK3Q](#) microcontroller, featuring an Arm® Cortex®-M33 core with Arm® TrustZone®.

The full range of hardware features available on the board (such as an RGB interface LCD with touch panel, USART, USB Type-C® FS (source/sink), Ethernet, microSD™, Octo-SPI flash memory, SAI audio codec stereo with audio jack input/output, MEMS digital microphone, and others) help users to interface with the STM32H5 MCU peripherals and develop their applications. Several connectors such as ARDUINO® Uno V3, Pmod™, and STMod+ are also available on the board to provide an easy way to connect extension shields or daughterboards for specific applications.

The [STM32H573I-DK](#) Discovery kit integrates an STLINK-V3EC embedded in-circuit debugger and programmer for the STM32 microcontroller with a USB Virtual COM port bridge and comes with the [STM32CubeH5](#) Expansion Package, which gathers in one single package all the generic embedded software components required to develop an application on STM32H5 microcontrollers and provides several examples and applications for easy understanding.

2 Ordering information

To order the **STM32H573I-DK** Discovery kit, refer to [Table 1](#). For a detailed description of each board, refer to its user manual on the product web page. Additional information is available from the datasheet and reference manual of the target STM32.

Table 1. List of available products

Order code	Board reference	User manual	Target STM32
STM32H573I-DK	<ul style="list-style-type: none"> MB1280⁽¹⁾ MB1400⁽²⁾ MB1677⁽³⁾ 	UM3143	STM32H573IHK3Q

1. Fan-out daughterboard
2. Wi-Fi[®] module
3. Main board

2.1 Product marking

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

- First sticker: product order code and product identification, generally placed on the main board featuring the target device.

Example:

Product order code
Product identification

- Second sticker: board reference with revision and serial number, available on each PCB.

Example:

MBxxxx-Variant-yzz	
syywwxxxxx	

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.

Parts marked as “*ES*” or “*E*” are not yet qualified and therefore not approved for use in production. ST is not responsible for any consequences resulting from such use. In no event will ST be liable for the customer using any of these engineering samples in production. ST’s Quality department must be contacted prior to any decision to use these engineering samples to run a qualification activity.

“*ES*” or “*E*” 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 might need to purchase a part number specific to this stack/library. The price of those part numbers includes the stack/library royalties.

2.2 Codification

The meaning of the codification is explained in [Table 2](#).

Table 2. Codification explanation

STM32TXXY-DK	Description	Example: STM32H573I-DK
STM32TT	MCU series in STM32 32-bit Arm Cortex MCUs	STM32H5 series
XX	MCU product line in the series	STM32H563/573 product line
Y	STM32 flash memory size: <ul style="list-style-type: none"> I for 2 Mbytes 	2 Mbytes
DK	Toolkit configuration: <ul style="list-style-type: none"> Discovery kit 	Discovery kit

3 Development environment

The STM32H573I-DK Discovery kit runs with the STM32H573IIK3Q 32-bit microcontroller based on the Arm® Cortex®-M33 core with Arm® TrustZone®.

Note: Arm and TrustZone are registered trademarks of Arm Limited (or its subsidiaries) in the US and/or elsewhere.



3.1 System requirements

- Multi-OS support: Windows® 10, Linux® 64-bit, or macOS®
- USB Type-A or USB Type-C® to USB Type-C® 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.
Windows is a trademark of the Microsoft group of companies.

3.2 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
24-Feb-2023	1	Initial release.

IMPORTANT NOTICE – READ CAREFULLY

STMicroelectronics NV and its subsidiaries (“ST”) reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST’s terms and conditions of sale in place at the time of order acknowledgment.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of purchasers’ products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. For additional information about ST trademarks, refer to www.st.com/trademarks. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2023 STMicroelectronics – All rights reserved