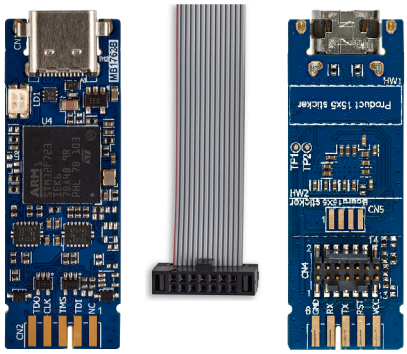
STLINK-V3MINIE

Data brief

STLINK-V3MINIE debugger/programmer tiny probe for STM32 microcontrollers



STLINK-V3MINIE top, bottom, and cable views. Picture is not contractual.

Product status link
STLINK-V3MINIE

Features

- Tiny 15 mm × 42 mm standalone debugging and programming probe for STM32 microcontrollers
- Self-powered through a USB Type-C® connector
- USB 2.0 high-speed interface
- Probe firmware update through USB
- Optional drag-and-drop Flash memory programming of binary files
- Communication bi-color LED
- JTAG communication support up to 21 MHz
- SWD (Serial Wire Debug) and SWV (Serial Wire Viewer) communication support up to 24 MHz
- Virtual COM port (VCP) up to 15 Mbps
- 1.65 to 3.60 V application voltage support
- Board connectors:
  - USB Type-C® connector
  - 1.27 mm pitch STDC14 debug connector with STDC14 to STDC14 flat cable
  - 2.0 mm pitch on-board pads for BTB (Board-to-board) card edge connector

Description

STLINK-V3MINIE is a stand-alone debugging and programming tiny probe for STM32 microcontrollers.

The JTAG/SWD interfaces are used to communicate with any STM32 microcontroller located on an application board.

STLINK-V3MINIE also provides a Virtual COM port interface for the host PC to communicate with the target microcontroller through one UART.

STLINK-V3MINIE is a portable version easy-to-use debugger and programmer including STDC14 interface with its flat cable and on-board pads for board-to-board (BTB) card edge connector.

1 Ordering information

To order the STLINK-V3MINIE tiny probe, refer to Table 1. For a detailed description of the board, refer to its user manual on the product web page.

Table 1. Ordering information

Order code	Content and references	User manual	Description
STLINK-V3MINIE	• MB1762(1) • FFC(2)	UM2910	• STLINK-V3 in-circuit debugger and programmer for STM32 microcontrollers with level shifter • STM32 board featuring a double-row, 14-pin (2 × 7) female ZIF connector

1. *Tiny probe board.*
2. *Flexible flat cable.*

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.

2 Development environment

STLINK-V3MINIE runs with an STM32 32-bit microcontroller based on the Arm® Cortex®-M 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 USB Type-C® cable

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

Date	Revision	Changes
30-Sep-2021	1	Initial release.
1-Dec-2021	2	Updated Cover image, Features, and Ordering information.