

## STLINK-V3SET debugger/programmer for STM8 and STM32

Data brief

### Features

- Stand-alone probe with modular extensions
- Self-powered through a USB connector (Micro-B)
- USB 2.0 high-speed compatible interface
- Direct firmware update support (DFU)
- JTAG / serial wire debugging (SWD) specific features:
  - 3 to 3.6 V application voltage support and 5 V tolerant inputs
  - Flat cables STDC14 to MIPI10 / STDC14 / MIPI20 (connectors with 1.27 mm pitch)
  - JTAG communication support
  - SWD and serial wire viewer (SWV) communication support
- SWIM specific features (only available with adapter board MB1440):
  - 1.65 to 5.5 V application voltage support
  - SWIM header (2.54 mm pitch)
  - SWIM low-speed and high-speed modes support
- Virtual COM port (VCP) specific features:
  - 3 to 3.6 V application voltage support on the UART interface and 5 V tolerant inputs
  - VCP frequency up to 15 MHz
  - Available on STDC14 debug connector (not available on MIPI10)
- Multi-path bridge USB to SPI/UART/I<sup>2</sup>C/CAN/GPIOs specific features:
  - 3 to 3.6 V application voltage support and 5 V tolerant inputs
  - Signals available on adapter board only (MB1440)
- Drag-and-drop flash programming of binary files
- Two-color LEDs: communication, power



Picture is not contractual.

### Description

The STLINK-V3SET is a modular stand-alone debugging and programming probe for the STM8 and STM32 microcontrollers. It is composed of a main module and a complementary adapter board.

The SWIM and JTAG/SWD interfaces are used to communicate with any STM8 or STM32 microcontroller located on an application board.

The STLINK-V3SET also provides a Virtual COM port interface allowing the host PC to communicate with the target microcontroller through one UART, and bridge interfaces (SPI, I<sup>2</sup>C, CAN, GPIOs) allowing for instance the programming of the target through the bootloader.

The STLINK-V3SET can provide a second Virtual COM port interface allowing the host PC to communicate with the target microcontroller through another UART (called bridge UART). Bridge UART signals, including optional RTS and CTS, are available on adapter board only (MB1440). The second Virtual COM port activation is done through a reversible firmware update, which also disables the mass storage interface (used for drag-and-drop flash programming).

The modular architecture of STLINK-V3SET enables to extend its main features through additional modules such as the adapter board.

## General information

The STLINK-V3SET embeds an STM32 32-bit microcontroller based on the Arm<sup>®(a)</sup> Cortex<sup>®</sup>-M processor.



## System requirements

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

## Development toolchains

- Keil<sup>®</sup> MDK-ARM<sup>(c)</sup>
- IAR<sup>™</sup> EWARM<sup>(c)</sup>
- GCC-based IDEs

## Ordering information

To order the STLINK-V3SET, refer to [Table 1](#).

**Table 1. Ordering information**

| Order code   | Description  |
|--------------|--|
| STLINK-V3SET | STLINK-V3 modular in-circuit debugger and programmer for STM8 and STM32. |

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b. macOS<sup>®</sup> is a trademark of Apple Inc. registered in the U.S. and other countries.

c. On Windows<sup>®</sup> only.

## Revision history

Table 2. Document revision history

| Date        | Revision | Changes  |
|-------------|----------|--|
| 6-Sep-2018  | 1        | Initial release.   |
| 14-Nov-2019 | 2        | Second Virtual COM port added to <a href="#">Description</a> . |

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