STLINK-V3MODS mini debugger and programmer for STM32 microcontrollers

Features

- Modular probe with small size: approximately 15 x 30 mm
- Direct-to-PCB implementation by 2 x 16-pin 1.27 mm edge castellated vias, with all signals available in required minimum PCB surface
- 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 V to 3.6 V application voltage support and 5 V tolerant inputs
  - JTAG communication support
  - SWD and serial wire viewer (SWV) communication support
- Virtual COM port (VCP) specific features:
  - 3 V to 3.6 V application voltage support on the UART interface and 5 V tolerant inputs
  - VCP frequency up to 15 MHz
- Multi-path bridge USB to SPI/UART/I²C/CAN/GPIOs specific features:
  - 3 V to 3.6 V application voltage support and 5 V tolerant inputs
- Drag-and-drop Flash programming
- Two color LEDs: communication, power

Description

The STLINK-V3MODS is a small size debugging and programming probe for STM32 microcontrollers.

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

The STLINK-V3MODS also provides a Virtual COM port interface enabling the host PC to communicate with the target microcontroller through one UART, and bridge interfaces (SPI, I²C, CAN, GPIOs) simplifying for instance the field programming through bootloader.

The STLINK-V3MODS is ready to be embedded in a master application and can be directly soldered on the PCB motherboard.
General information

The STLINK-V3MODS embeds an STM32 32-bit microcontroller based on the Arm® Cortex®-M processor.

System requirements

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

Development toolchains

- Keil® MDK-ARM®
- IAR™ EWARM
- GCC-based IDEs

Ordering information

To order the STLINK-V3MODS, refer to Table 1.

<table>
<thead>
<tr>
<th>Order code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>STLINK-V3MODS</td>
<td>STLINK-V3 modular in-circuit debugger and programmer for STM32 microcontrollers</td>
</tr>
</tbody>
</table>

---

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.
Revision history

Table 2. Document revision history

<table>
<thead>
<tr>
<th>Date</th>
<th>Revision</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-Dec-2018</td>
<td>1</td>
<td>Initial version</td>
</tr>
</tbody>
</table>
IMPORTANT NOTICE – PLEASE 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 acknowledgement.

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. 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.

© 2018 STMicroelectronics – All rights reserved