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## ST-LINK/V2 in-circuit debugger/programmer for STM8 and STM32

Data brief

### Features

- 5 V power supplied by a USB connector
- USB 2.0 full-speed-compatible interface
- USB standard A to Mini- B cable
- SWIM specific features
  - 1.65 V to 5.5 V application voltage supported on SWIM interface
  - SWIM low-speed and high-speed modes supported
  - SWIM programming speed rate: 9.7 Kbytes/s in low speed and 12.8 Kbytes/s in high speed
  - SWIM cable for connection to the application via an ERNI standard vertical connector (ref: 284697 or 214017) or horizontal connector (ref: 214012)
  - SWIM cable for connection to the application via a pin header or a 2.54 mm pitch connector
- JTAG/serial wire debugging (SWD) specific features:
  - 1.65 V to 3.6 V application voltage supported on the JTAG/SWD interface and 5 V tolerant inputs
  - JTAG cable for connection to a standard JTAG 20-pin pitch 2.54 mm connector
  - JTAG supported
  - SWD and serial wire viewer (SWV) communication supported
- Direct firmware update feature supported (DFU)
- Status LED which blinks during communication with the PC
- Operating temperature 0 to 50 °C
- 1000 V<sub>rms</sub> high isolation voltage (ST-LINK/V2-ISOL only)



1. The first figure at the top shows the ST-LINK/V2-ISOL, while the second figure shows the ST-LINK/V2.

## Description

The ST-LINK/V2 is an in-circuit debugger and programmer for the STM8 and STM32 microcontroller families. The single wire interface module (SWIM) and JTAG/serial wire debugging (SWD) interfaces are used to communicate with any STM8 or STM32 microcontroller located on an application board.

In addition to provide the same functionalities as the ST-LINK/V2, the ST-LINK/V2-ISOL features digital isolation between the PC and the target application board. It also withstands voltages of up to 1000 V<sub>rms</sub>.

STM8 applications use the USB full-speed interface to communicate with the ST Visual Develop (STVD) or ST Visual Program (STVP) software.

STM32 applications use the USB full-speed interface to communicate with Atollic<sup>®</sup>, IAR<sup>™</sup>, Keil<sup>®</sup> or TASKING integrated development environments.

## Revision history

**Table 1. Document revision history**

Date	Revision	Changes
21-Apr-2011	1	Initial release.
07-May-2012	2	Added SWD to JTAG connection features.
14-Sep-2012	3	Added ST-LINK/V2-ISOL.
24-Mar-2016	4	Updated $V_{\text{rms}}$ value in <i>Features</i> and <i>Description</i> .

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