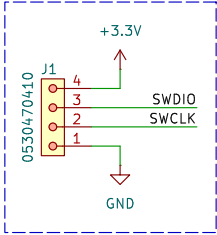
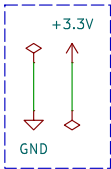
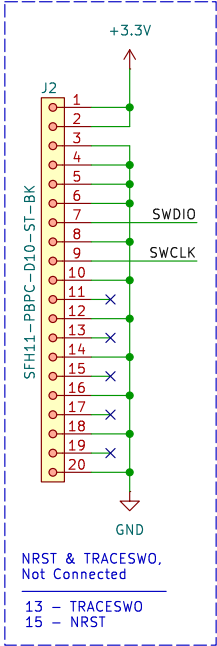


Single Wire Debug



SWD Connector

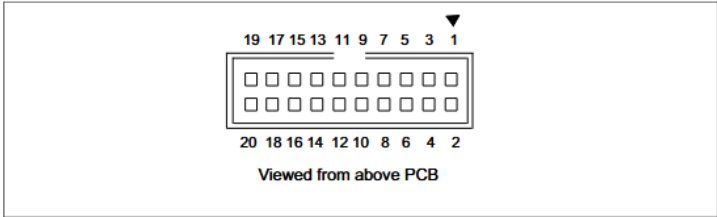


STLink Pinout Information

Table 4. JTAG/SWD cable connections on STLINK-V2

| Pin no. | ST-LINK/V2 connector (CN3) | ST-LINK/V2 function | Target connection (JTAG) | Target connection (SWD) |
|---------|----------------------------|---------------------|--------------------------|-------------------------|
| 1 | VAPP | Target VCC | MCU VDD ⁽¹⁾ | MCU VDD ⁽¹⁾ |
| 2 | | | | |
| 3 | TRST | JTAG TRST | NJTRST | GND ⁽²⁾ |
| 4 | GND | GND | GND ⁽³⁾ | GND ⁽³⁾ |
| 5 | TDI | JTAG TDO | JTDI | GND ⁽²⁾ |
| 6 | GND | GND | GND ⁽³⁾ | GND ⁽³⁾ |
| 7 | TMS_SWDIO | JTAG TMS, SW IO | JTMS | SWDIO |
| 8 | GND | GND | GND ⁽³⁾ | GND ⁽³⁾ |
| 9 | TCK_SWCLK | JTAG TCK, SW CLK | JTCK | SWCLK |
| 10 | GND | GND | GND ⁽³⁾ | GND ⁽³⁾ |
| 11 | Not connected | Not connected | Not connected | Not connected |
| 12 | GND | GND | GND ⁽³⁾ | GND ⁽³⁾ |
| 13 | TDO_SWO | JTAG TDI, SWO | JTDO | TRACESWO ⁽⁴⁾ |
| 14 | GND | GND | GND ⁽³⁾ | GND ⁽³⁾ |
| 15 | NRST | NRST | NRST | NRST |
| 16 | GND | GND | GND ⁽³⁾ | GND ⁽³⁾ |
| 17 | Not connected | Not connected | Not connected | Not connected |
| 18 | GND | GND | GND ⁽³⁾ | GND ⁽³⁾ |
| 19 | VDD | VDD (3.3 V) | Not connected | Not connected |
| 20 | GND | GND | GND ⁽³⁾ | GND ⁽³⁾ |

Figure 10. JTAG debugging flat ribbon layout



The Lark Project
Designer: HamSlices
Thermal Print Engine



Sheet: /
File: Adapter.kicad_sch

Title: STlink Adapter

Size: A4 Date: 2025-10-18

KiCad E.D.A. 9.0.5

Rev: 01.00.01

Id: 1/1