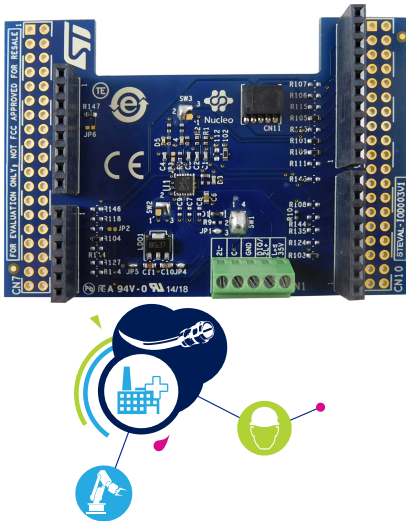


## IO-Link (PHY) device expansion board based on L6362A



### Features

- L6362A IO-Link device transceiver main characteristics:
  - IO-Link PHY layer
  - Dedicated overload diagnostics pin
  - UART interface
  - Selectable 12 mA 3.3 V or 10 mA 5.0 V linear regulator
  - Overload and overheating protections with non-dissipative cut-off function
  - Full reverse polarity on IO-Link interface pins
  - EMC protections (as per IO-Link v1.1)
  - Surge protection (as per IEC 60947-5-2)
  - DFN-12L (3x3x0.9 mm) package
- 6.5 to 35 V operating voltage range
- On-board 100 mA 12 V linear regulator (L78L)
- LEDs for status and diagnostics
- Ground and V<sub>CC</sub> wire break protections
- Compatible with STM32 Nucleo boards
- Equipped with Arduino UNO R3 connectors
- RoHS and China RoHS compliant

### Description

The STEVAL-IOD003V1 evaluation board is based on the L6362A IO-Link PHY device with full integrated EMC protection (according to IO-Link v1.1 specification) and surge protection (according to IEC 60947-5-2). It provides an affordable and easy-to-use solution for the development of IO-Link and SIO applications, letting you easily evaluate the communication features and robustness of the L6362A.

The on-board linear regulators (12 mA-3.3 V from L6362A and 100 mA-12 V from L78L12ABUTR) can be used to supply the micro-controller via the 24 V bus, instead of via USB.

When the L78L12ABUTR is enabled (default configuration), you can also perform evaluation of complete industrial sensor modules by connecting the STEVAL-IOD003V1 to a NUCLEO-L073RZ (or NUCLEO-L053R8) board and an X-NUCLEO-IKS01A2 expansion board.

The IO-Link protocol can also be evaluated connecting the STEVAL-IOD003V1 to a NUCLEO-L452RE.

The STEVAL-IOD003V1 interfaces with the STM32 controller via UART and GPIO pins and is compatible with the Arduino UNO R3 (default configuration) and ST morpho (optional, not mounted) connectors.

Product summary	
IO-Link device evaluation board based on L6362A with Arduino connectors for STM32 Nucleo	STEVAL-IOD003V1
IO-Link communication transceiver device IC	L6362A
L6362A IO-Link communication transceiver device IC evaluation software based on STM32Cube	STSW-IOD003
Industrial IO-Link device software expansion for STM32Cube	X-CUBE-IOD02

# 1 STEVAL-IOD003V1 schematic diagrams

Figure 1. STEVAL-IOD003V1 circuit schematic (1 of 4)

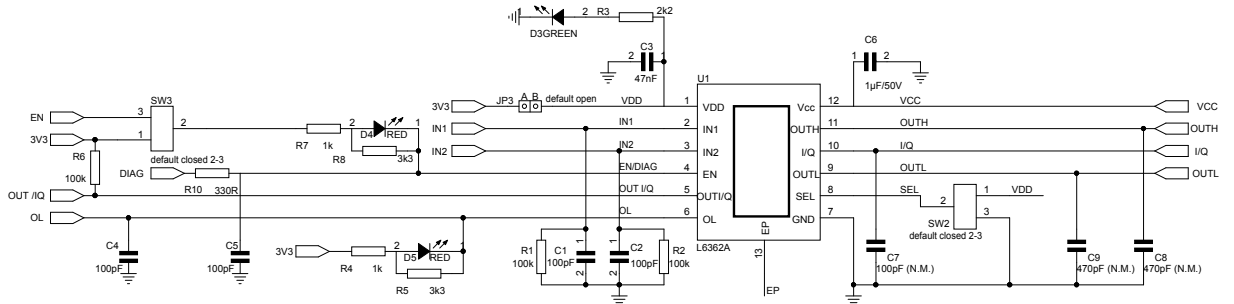


Figure 2. STEVAL-IOD003V1 circuit schematic (2 of 4): Arduino connectors

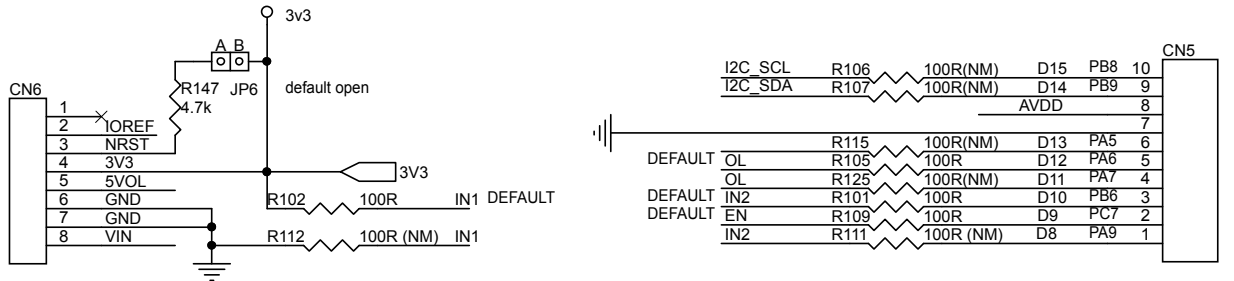


Figure 3. STEVAL-IOD003V1 circuit schematic (3 of 4): ST morpho connectors

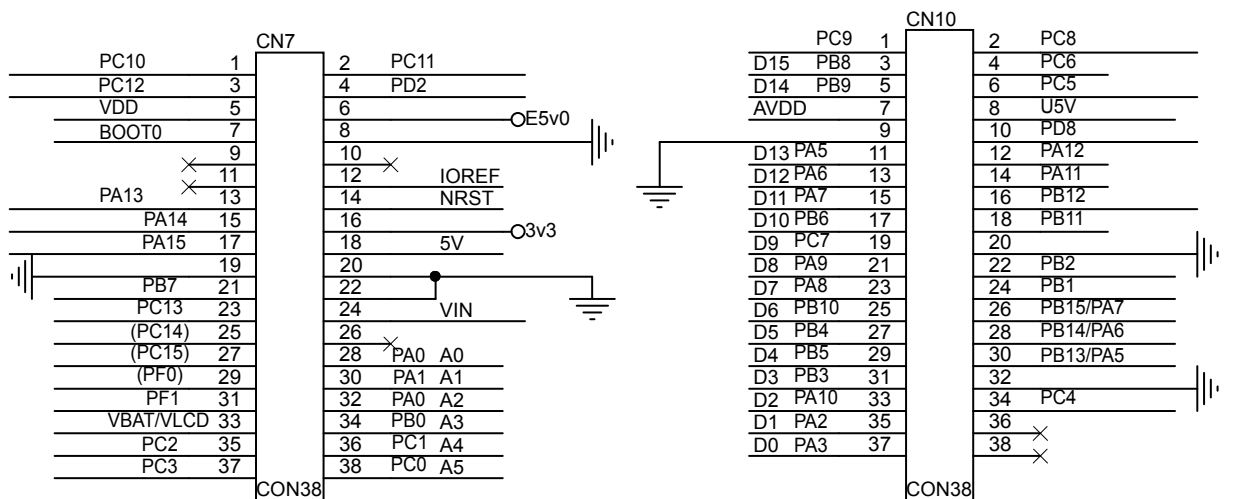
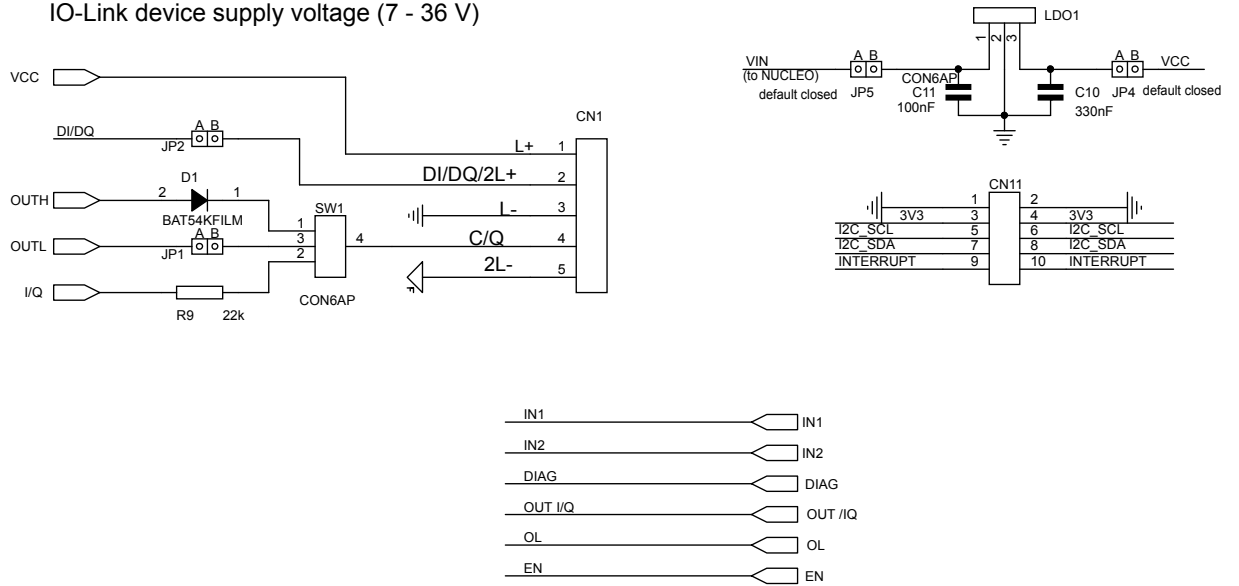


Figure 4. STEVAL-IOD003V1 circuit schematic (4 of 4): supply voltage

IO-Link device supply voltage (7 - 36 V)



## Revision history

**Table 1. Document revision history**

Date	Version	Changes
04-Jun-2018	1	Initial release.
24-Jul-2023	2	Updated title, description and product summary.

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