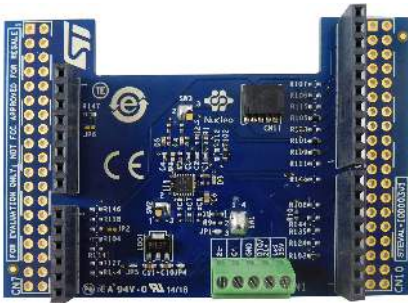


## IO-Link (PHY) device evaluation board based on L6362A with Arduino connectors for STM32 Nucleo



### 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  $V_{CC}$  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 microcontroller 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 **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	<b>STEVAL-IOD003V1</b>
IO-Link communication transceiver device IC	<b>L6362A</b>
L6362A IO-Link communication transceiver device IC evaluation software based on STM32Cube	<b>STSW-IOD003</b>

# 1 STEVAL-IOD003V1 schematic diagrams

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

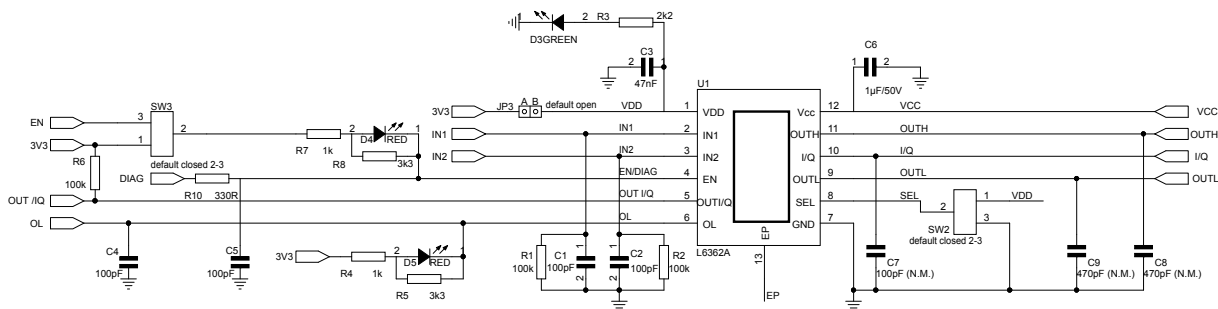


Figure 2. STEVAL-IOD003V1 circuit schematic (2 of 4): Arduino connectors

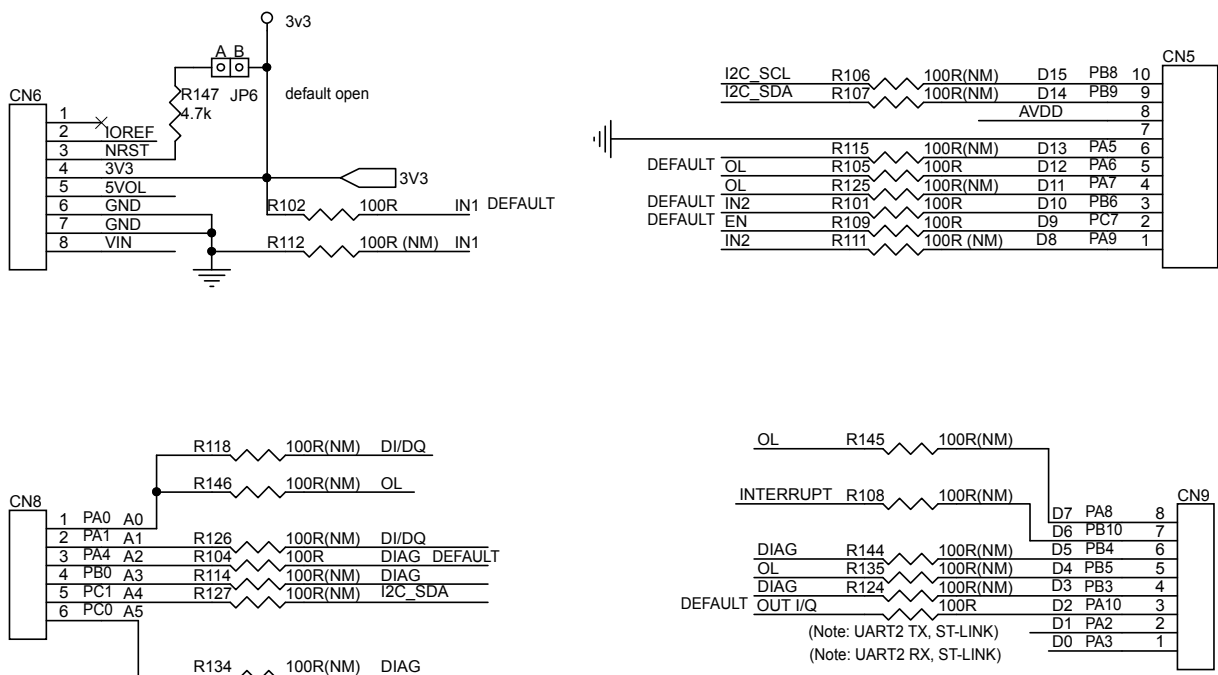


Figure 3. STEVAL-IOD003V1 circuit schematic (3 of 4): ST morpho connectors

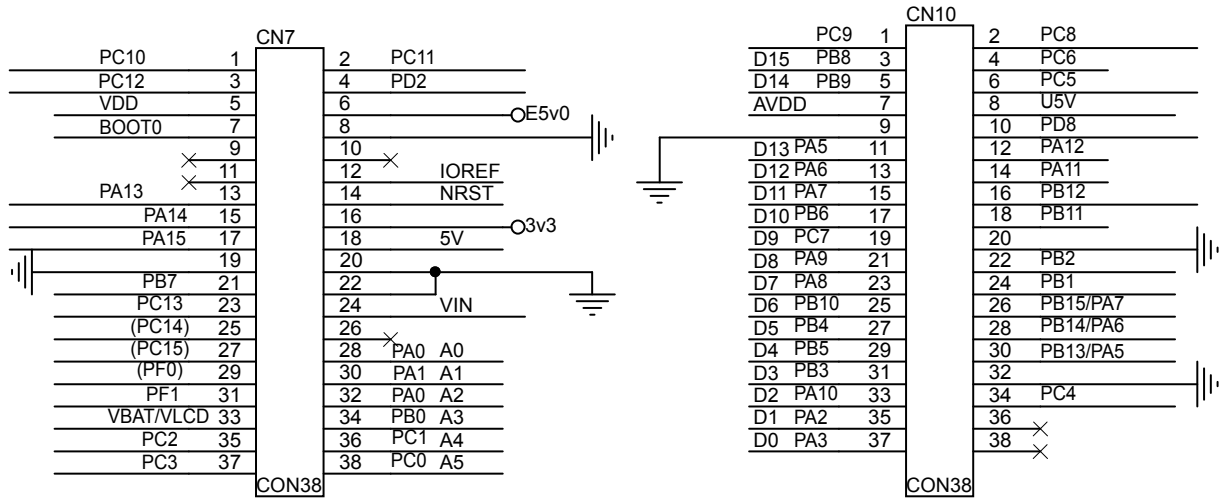
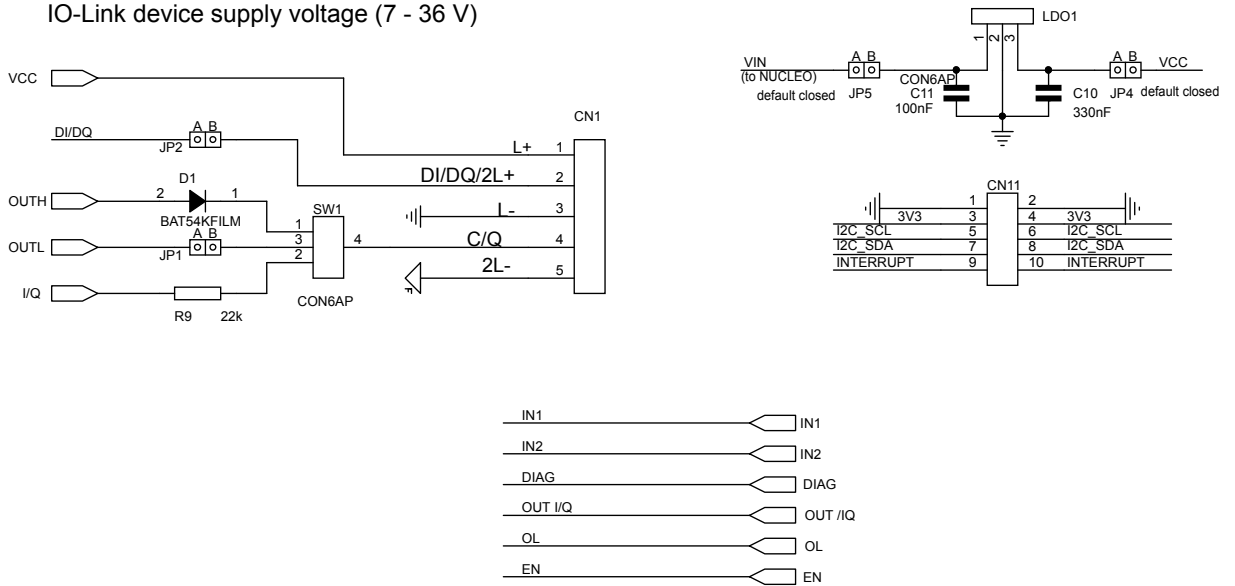


Figure 4. STEVAL-IOD003V1 circuit schematic (4 of 4): supply voltage

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



## Revision history

**Table 1. Document revision history**

Date	Version	Changes
04-Jun-2018	1	Initial release.

**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