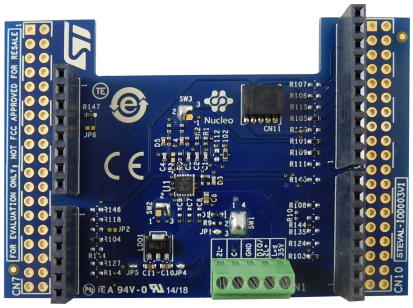
# STEVAL-IOD003V1

Data brief

# 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

| 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 |

## 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.

# 1 STEVAL-IOD003V1 schematic diagrams

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

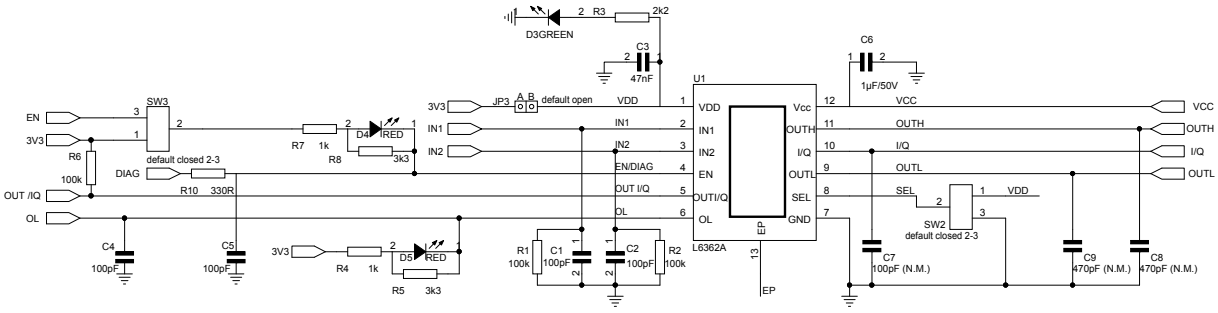



**Figure 2. STEVAL-IOD003V1 circuit schematic (2 of 4): Arduino connectors**

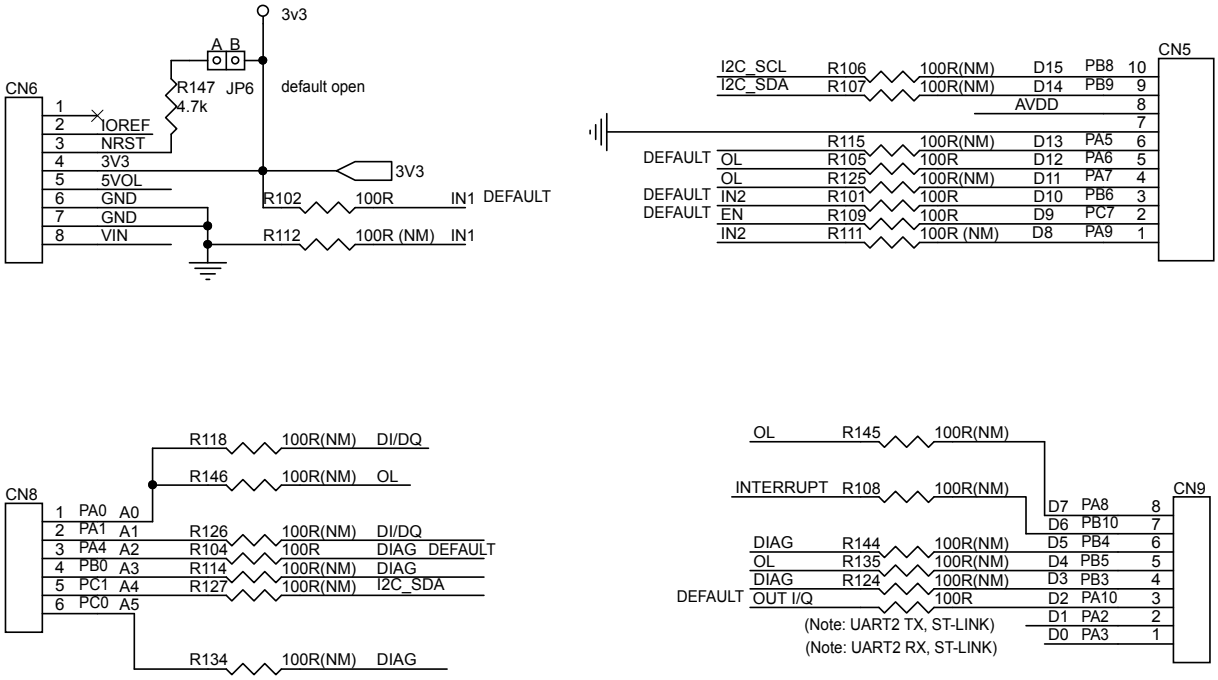


**Figure 3. STEVAL-IOD003V1 circuit schematic (3 of 4): ST morpho connectors**

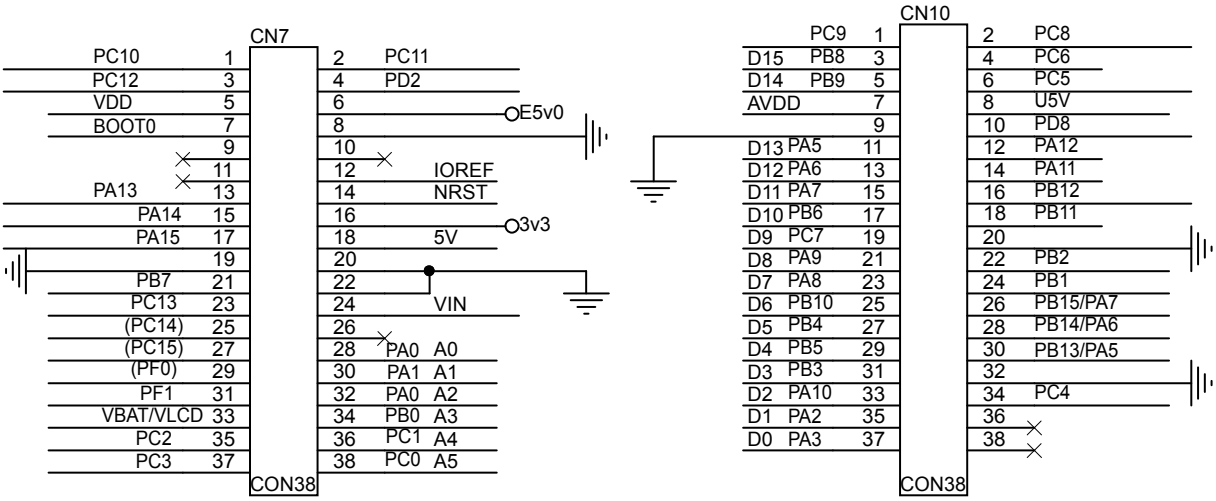
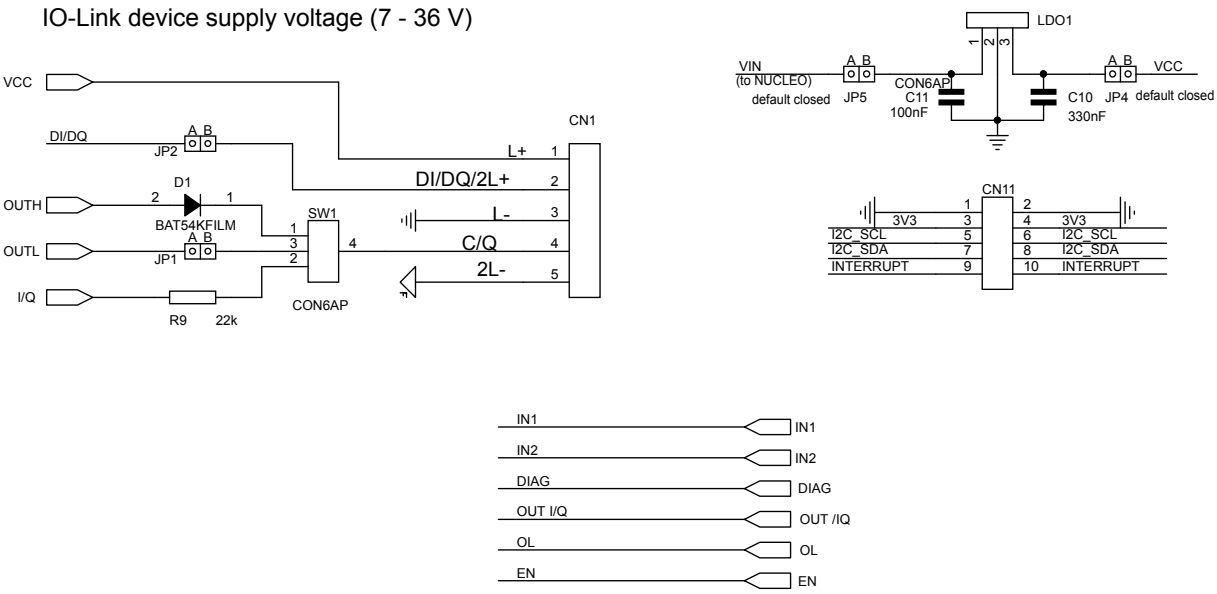



**Figure 4. STEVAL-IOD003V1 circuit schematic (4 of 4): supply voltage**



# Revision history

Table 1. **Document revision history**

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

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