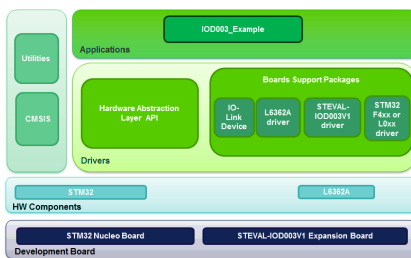


L6362A IO-Link communication transceiver device IC evaluation software based on STM32Cube



Features

- Driver layer for the management of the **L6362A** IO-Link communication transceiver device IC integrated in the **STEVAL-IOD003V1** evaluation board
- GPIOs and IRQs configuration
- I/Q channel control for reception and transmission
- Fault interrupt handling
- Sample application for controlling an L6362A device
- Easy portability across different MCU families, thanks to **STM32Cube**
- Free, user-friendly license terms

Description

The **STSW-IOD003** is an evaluation software for the **STEVAL-IOD003V1** evaluation board which integrates the **L6362A** IO-Link transceiver device.

The software runs on the STM32 and provides basic management of the L6362A device.

It is built on top of **STM32Cube** software technology that eases portability across different STM32 microcontrollers.

The software comes with a sample implementation to show its main functionalities. It is compatible with **NUCLEO-F401RE** or **NUCLEO-L073RZ** when connected to a **STEVAL-IOD003V1** evaluation board.

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

1 What is STM32Cube?

STM32Cube™ is designed by STMicroelectronics to reduce development effort, time and cost across the entire STM32 portfolio.

STM32Cube version 1.x includes:

- STM32CubeMX, a graphical software configuration tool that allows the generation of C initialization code using graphical wizards.
- A comprehensive embedded software platform specific to each series (such as the STM32Cube for the STM32 series), which includes:
 - the STM32Cube HAL embedded abstraction-layer software, ensuring maximized portability across the STM32 portfolio
 - a consistent set of middleware components such as RTOS, USB, TCP/IP and graphics
 - all embedded software utilities with a full set of examples

1.1 How does this software complement STM32Cube?

This software is based on the STM32CubeHAL hardware abstraction layer for the STM32 microcontroller. The package extends [STM32Cube](#) by providing a board support package (BSP) for the [STEVAL-IOD003V1](#) evaluation board based on the [L6362A](#).

The drivers abstract low-level details of the hardware and allow the middleware components and applications to access functions and data associated of the IO-Link transceiver device.

It offers the following features:

- GPIOs and IRQs configuration for Diag and OL pins
- C/Q channel enabling
- reception and transmission via the I/Q channels
- COM mode setting: COM1 (4.8 kbaud), COM2 (38.4 kbaud) or COM3 (230.4 kbaud)
- fault interrupt handling for overtemperature or overload reporting

The software package includes a sample application for driving an L6362A using the user button of the [STM32 Nucleo](#) board.

Revision history

Table 1. Document revision history

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

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