

# **IO-LINK NUCLEO PACKS**

# based on L6360, L6362A and STM32



Complete and easy to use development platform for IO-Link communication fully compatible with IO-Link v1.1 (PHY and Stack)

Our two STM32 Nucleo packs provide an affordable and easy-to-use solution for the development of IO-Link Master and Device applications.

The two systems are the ideal combination of the communication features and robustness of the ST physical layers (L6360 Master and L6362A Device transceiver ICs) with the STM32 computation performance running on the demo-stacks (from TEConcept GmbH) compatible with rev 1.1 of the IO-Link specification.

#### **KEY FEATURES & BENEFITS**

- IO-Link Master pack (P-NUCLEO-IOM01M1)
- Based on L6360 Master PHY IC and IO-Link stack v1.1
- Features fully accessible through dedicated SPI interface enabling gateway applications
- IO-Link Device pack (P-NUCLEO-IOD01A1)
- Based on L6362A Device PHY IC and IO-Link stack v1.1.3
- Multiple MEMS sensors
- Source code examples for sensors and stack library
- Dedicated GUI available (from TEConcept GmbH)
- Affordable, easy-to-use solution

- for the immediate evaluation of a complete IO-Link system
- Rapid, cost-effective way to get functional prototypes
- Arduino™ UNO Rev. 3 connectivity and ST morpho connectors
- On-board ST-LINK/V2-1 debugger/ programmer with SWD connector
- LEDs for status and diagnostics

### **KEY APPLICATIONS**

 Drive sensors and actuators in factory automation applications, using IO-Link and Standard Input/ Output (SIO) communication buses



The IO-Link Master pack (P-NUCLEO-IOM01M1) includes a single IO-Link master PHY layer evaluation board (STEVAL-IOM001V1) based on our L6360 master transceiver IC and an STM32F4 Nucleo-64 development board (NUCLEO-F446RE) running an IO-Link stack rev 1.1 (from TEConcept GmbH, license limited to 10k minutes, renewable without additional costs).

The pack, hosting up to four STEVAL-IOM001V1 boards to build a quad-port IO-Link master, can access the IO-Link physical layer and communicate with IO-Link Devices.

Developers can use the dedicated GUI (IO-Link Control Tool©, by TEConcept GmbH) to evaluate the tool or use it as an IO-Link master bridge accessible from the dedicated SPI interface.

The IO-Link Device pack (P-NUCLEO-IOD01A1) comes with an IO-Link device PHY layer evaluation board (STEVAL-IOD003V1) based on our L6362A IO-Link device transceiver IC, an ultra-low-power STM32L0 Nucleo-64 development board (NUCLEO-L073RZ) and a Motion MEMS and environmental sensor expansion board for STM32 Nucleo

(X-NUCLEO-IKS01A2). The STM32L0 Nucleo-64 board runs an IO-Link stack (by TEConcept GmbH) compatible with IO-Link stack rev 1.1.3 and firmware controlling the X-NUCLEO-IKS01A2 sensors. The development platforms for IO-Link are an affordable, easy-to-use solution that lets developers evaluate the communication features and robustness of our L6360 (master) and L6362A (device) IO-Link transceiver ICs together with the computational power of the high-performance STM32F4 or ultra-low-power STM32L0 microcontrollers.

#### 10-Link control tool



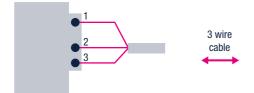
#### P-NUCLEO-IOM01M1



#### L6360 QFN26L (3.5x5mm)



#### IO-LINK Master Port Class A



#### P-NUCLEO-IOD01A1



#### L6362A DFN12L (3x3mm)



## **Evaluation board**

Part number	Description	STEVAL into the P-NUCLEO
P-NUCLEO-IOM01M1	STM32 Nucleo pack for IO-Link master based on L6360 device with IO-Link v1.1 (PHY and stack)	STEVAL-IOM001V1
P-NUCLEO-IODO1A1	STM32 Nucleo pack for IO-Link device based on L6362A device fully compatible with IO-Link v1.1.3 (PHY and stack)	STEVAL-IOD003V1



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