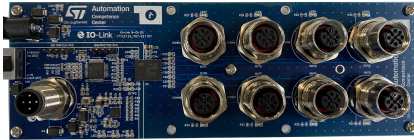


## 8-channel digital input IO-Link hub based on L6364



Fully assembled board developed for performance evaluation only, [not available for sale](#)

### Features

- Input DC voltage: 19-32 V<sub>DC</sub> (IO-Link VBus)
- IO-Link to 8-ch digital input
- Power supply voltage to external sensor 100mA/Ch
- 4-pin M12 standard industrial connector
- 5-pin M12 standard digital input connector

### Description

The **STDES-8CHDINPUT** board is designed with the **L6364** as IO-Link device transceiver, low power **STM32G071CB** as main controller 6 kV isolated device to ensure a safer isolation.

The **STDES-8CHDINPUT** is a turnkey solution ready for industrialization.

With the use of **SCLT3-8BQ7**, the digital input current for each channel is limited.

A dedicated SWD 5-pin connector allows to program the microcontroller.

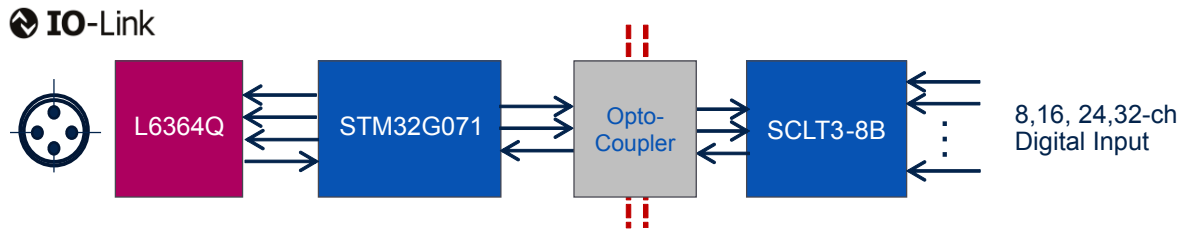
This **STDES-8CHDINPUT** reference design has to communicate with an IO-Link master board and a PC with an appropriated control GUI software. The IODD file for the **STDES-8CHDINPUT** is available.

Product summary	
8-channel digital input IO-Link hub based on L6364	<a href="#">STDES-8CHDINPUT</a>
Mainstream Arm Cortex-M0+ MCU with 128 Kbytes of Flash memory	<a href="#">STM32G071CBT6TR</a>
Dual channel transceiver IC for SIO and IO-Link sensor applications in QFN package	<a href="#">L6364Q</a>
High speed digital input current limiter with digital filter	<a href="#">SCLT3-8BQ7-TR</a>
Applications	<a href="#">Factory Automation</a>

## 1 Solution overview

The solution is based on a single [STM32G071](#) MCU and an [L6364Q](#) transceiver. It uses the [SCLT3-8BQ7](#) to convert the 24 V input to a SPI interface to the MCU.

**Figure 1. STDES-8CHDINPUT functional block diagram**



## 2 Schematic diagrams

Figure 2. STDES-8CHDINPUT circuit schematic (1 of 4)

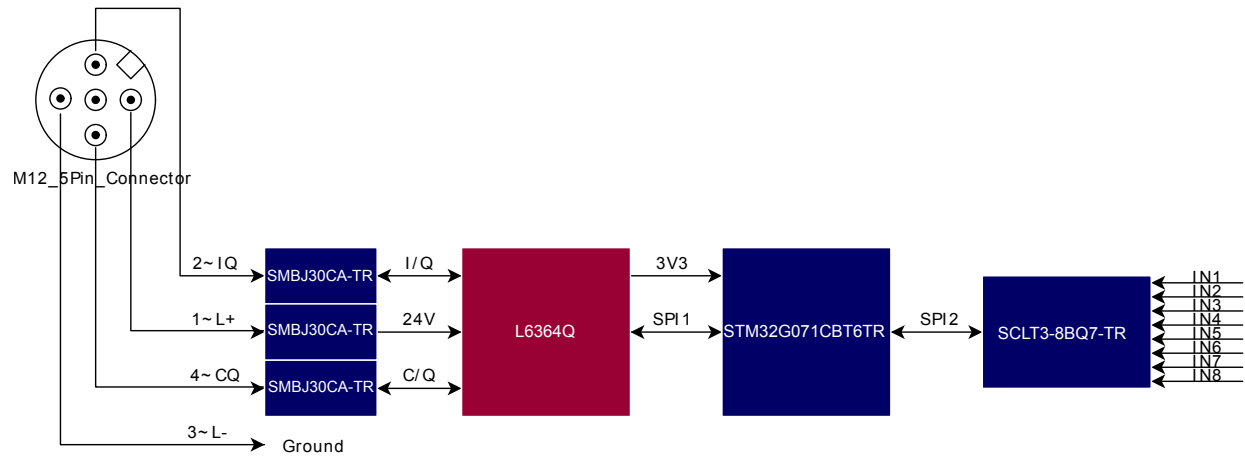




Figure 4. STDES-8CHDINPUT circuit schematic (3 of 4)

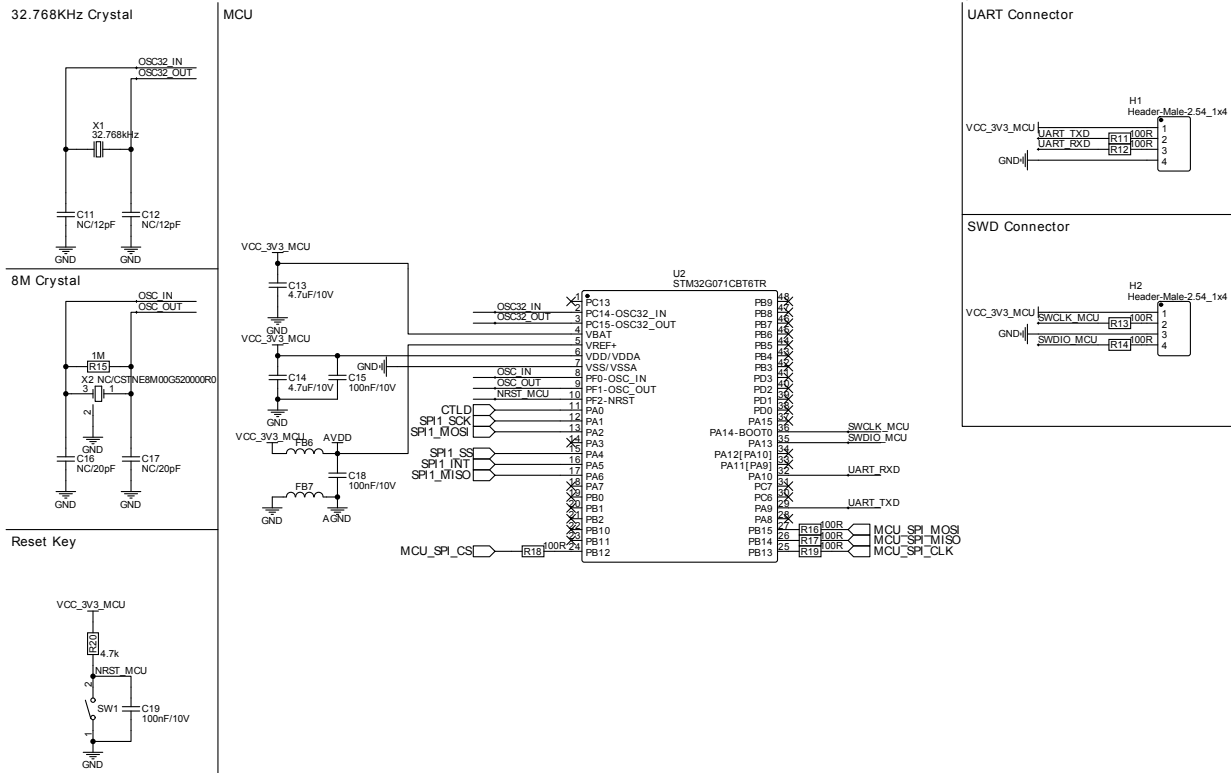
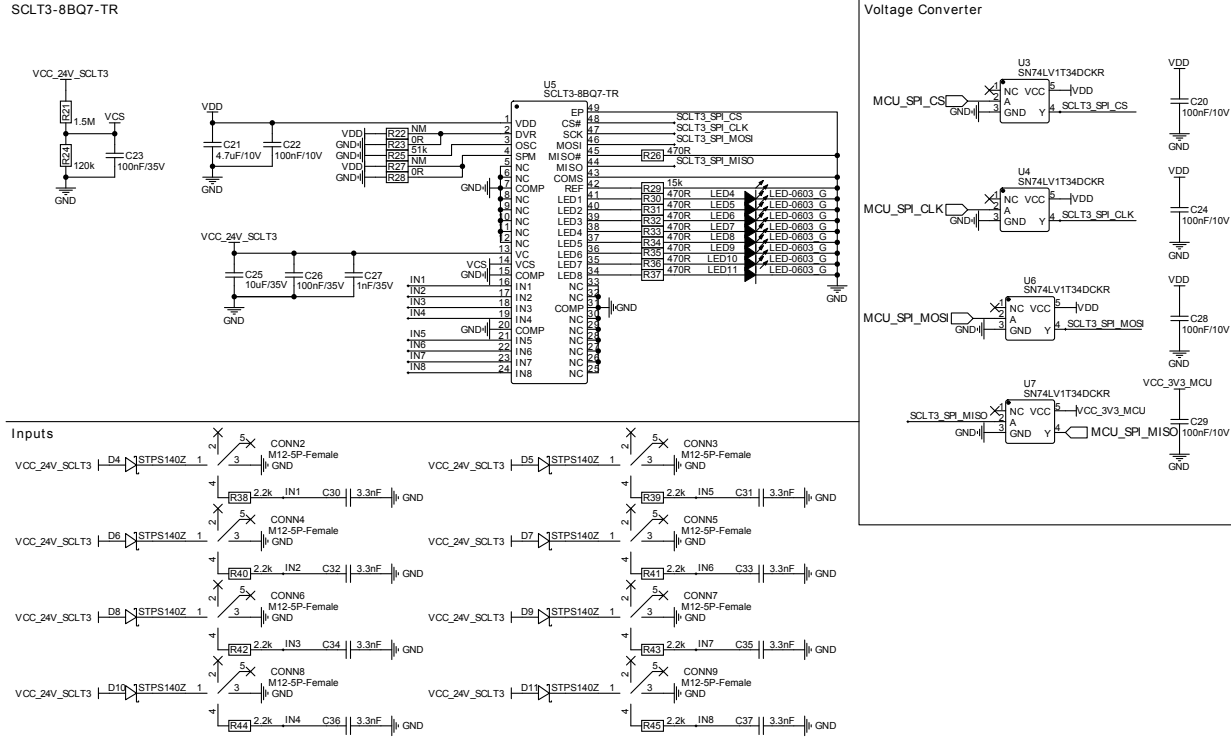


Figure 5. STDES-8CHDINPUT circuit schematic (4 of 4)



## Revision history

**Table 1. Document revision history**

Date	Revision	Changes
14-Nov-2022	1	Initial release.
03-Apr-2023	2	Updated Cover page image, Features, Description, Schematics diagrams and Section 1 <a href="#">Solution overview</a> . Removed STISO621 and SPT01.

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