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IO-Link 8-Channel Digital Output Hub Solution

Description

The IO-Link 8-Channel digital output solution is made up of three blocks: IO-Link transceiver L6364, octal high-side isolated driver ISO8200 and Arm Cortex-M0+ MCU STM32G071 . It provides an affordable and easy-to-use solution for the development of 8-channel digital output modules.

This is an isolated solution thanks to the embedded galvanic smart driver ISO8200.User applications and complex IO-Link stacks runs on the MCU STM32G071. while L6364 acts as a physical layer when the board is connected to the IO-Link master, then master can initiate communication and exchange data with the MCU. The L6364 also provides power supply to the MCU by the internal LDO, which saves the additional circuits and BOM cost.

Advantages: Low cost and low power consumption; Reduce software effort; Shorten time to market

Key Features

- M12 standard industrial connector
- Support 8 IO-Link digital output devices
- Support industrial 4.0 IO-LINK interface to connect sensors/actuators
- IO-Link version 1.1/1.0 physical layer compliant
- Configurable current limitation threshold of CQ and DIO lines, or CQ//DIO line (Join Mode)
- Quartz-free IO-Link clock extraction and timing generation at COM2 (38.4k Baud) and COM3 (230.4k Baud)

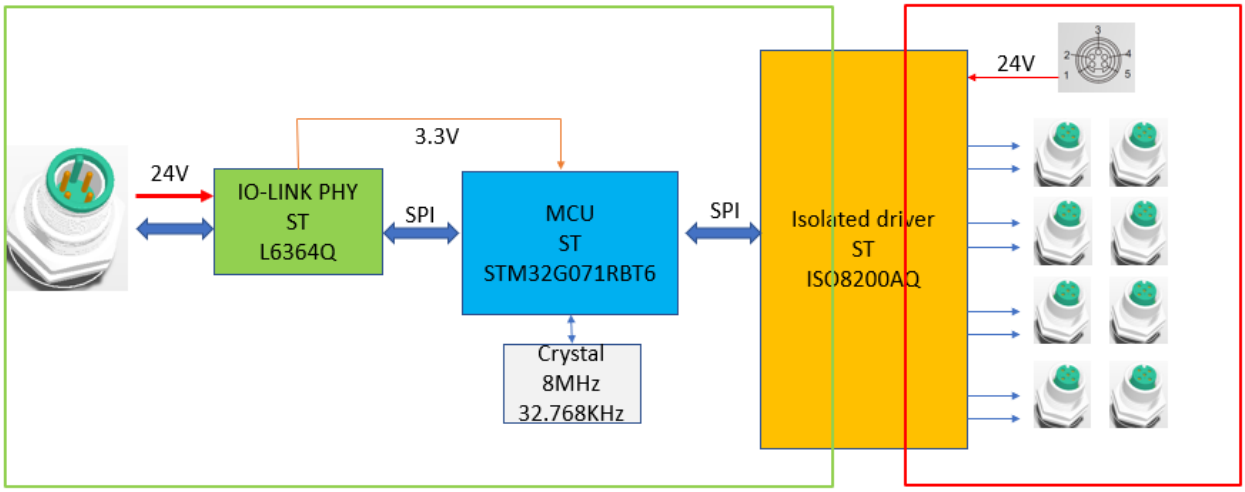
Core Chips

- **STM**: STM32G071RBT6; ISO8200AQ; L6364Q
- **Amphenol**: M12A-05PMMC-SF8B20; M12A-04PMMP-SF8001
- **muRata:** CSTNE8M00G520000R0; WMRAG32K76CS1C00R0

Application

- Industrial Maintenance
- IO-Link® Digital Sensing Systems
- Industrial PC peripheral output
- Industrial, Building and Factory Automation

Block Diagram



ArrowTechnicalSupport.AP@arrow.com