

CCE4502 - IO-Link Device Phy with Integrated Frame Handler

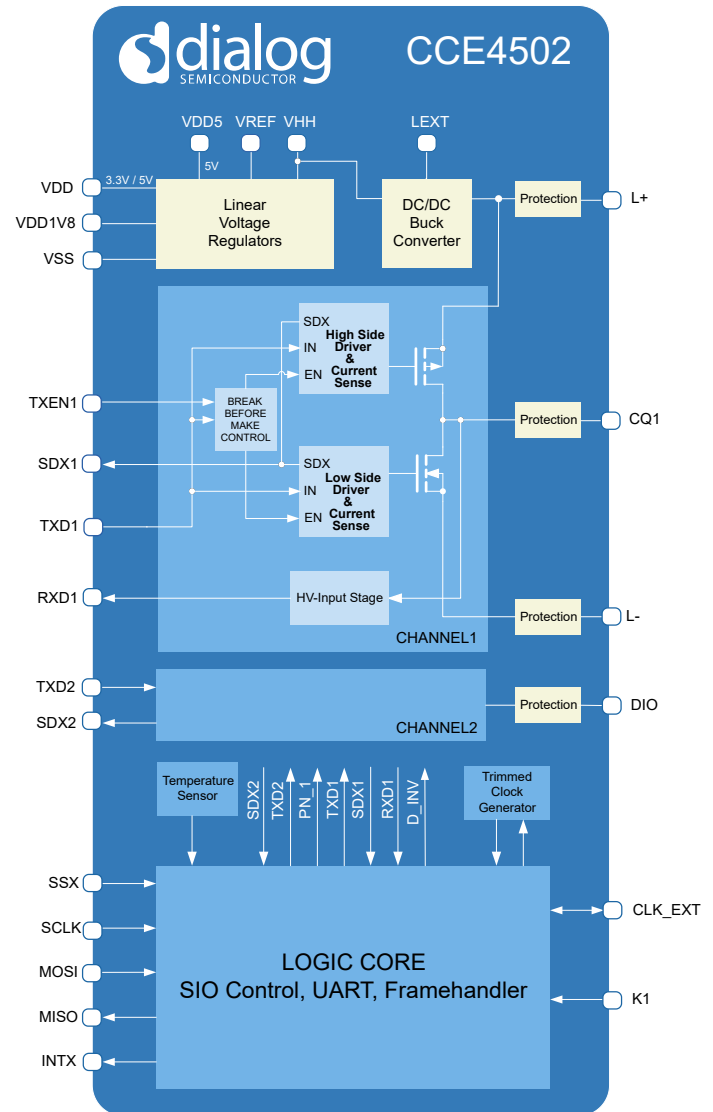
The CCE4502 is a highly integrated device-side IO-Link compliant transceiver IC. The built-in hardware based IO-Link frame handler provides full IO-Link protocol handling facilities making it simple to connect a host micro controller via the UART interface. The comprehensive function set includes LDOs and step down DC-DC converter, on chip oscillators and a user SPI interface for configuration and read back of fault indicators. The output stage provides overcurrent, reverse polarity and thermal protection and is tolerant to +/- 40V input. It is configurable as push-pull, open drain (PMOS or NMOS) or input only. Package options include a 4mm x 4mm, 0.5mm pitch QFN with an addition option of a 2mm x 2.6mm, 0.5mm pitch WLCSP. These options make the CC4502 suitable for demanding industrial applications where power dissipation or space are highly important.

Features

- ◆ IO-Link compliant transceiver
- ◆ Integrated UART (COM1-3)
- ◆ One IO-Link slave up to 200 mA driving current
- ◆ Programmable PNP-, NPN- and Push-Pull mode
- ◆ On-chip oscillator with $\pm 2\%$ frequency accuracy
- ◆ Reverse polarity and short circuit protection
- ◆ Two LDO voltage regulators (programmable 3.3V / 5V and 5V)
- ◆ DC / DC buck converter 7v
- ◆ Temperature stable reference voltage output
- ◆ Slew rate control
- ◆ High temperature detection
- ◆ QFN24, 4x4mm package or CSP 2.6x2mm

Benefits

- ◆ Integrated Frame Handler automates most of the lower layer communication tasks
- ◆ All IO-Link frame types supported
- ◆ Hardware IO-Link stack support
- ◆ Evaluation board available
- ◆ IO-Link Physical Layer Test for Evaluation Board available
- ◆ Rich configuration options



Applications

- ◆ Industrial Profibus /IO-Link Network
- ◆ Industrial Automation
 - Sensors
 - Actuators
- ◆ High voltage level shifter