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 ±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
IO-Link Evaluation Boards

Evaluating CCE4502 is made easy with the availability of two different designs of evaluation boards

- The Controller-Evaboard (pictured opposite) combines the CCE4502 with an on-board micro controller, two touch button sensors, a temperature sensor, a 64 kbit EEPROM and LED indicator.
- The Basic-EvaBoard features CCE4502 IO-Link compliant transceiver without periphery functions.

Both boards are equipped with a variety of connectors forming an easy-to-use platform for evaluation of the CCE4502 device.

Dialog Semiconductor Worldwide Sales Offices

www.dialog-semiconductor.com  email:info@diasemi.com

This publication is issued to provide outline information only, which unless agreed by Dialog Semiconductor may not be used, applied, or reproduced for any purpose or be regarded as a representation relating to products. All use of Dialog Semiconductor products, software and applications referred to in this document are subject to Dialog Semiconductor’s Standard Terms and Conditions of Sale, available on the company website (www.dialogsemiconductor.com) unless otherwise stated. Dialog and the Dialog logo are trademarks of Dialog Semiconductor plc or its subsidiaries. All other product or service names are the property of their respective owners. © Copyright 2019 Dialog Semiconductor. All rights reserved.