IO-Link is a standardized, serial, bi-directional point-to-point connection for signal transmission and power supply under any networks, fieldbuses, or backplane buses. The CCE4510 is a highly integrated IO-Link Master Phy IC providing two IO-Link compliant channels with 1A peak driving current. The built-in IO-Link hardware frame handler significantly improves application performance by automating most of the lower layer communication tasks. By reducing the micro controller load, CCE4510 frees up valuable processing bandwidth enabling developers to add greater value by running additional processor-intensive tasks without the need for higher performance micro controllers. Alternatively, developers can reduce system cost by using less capable micro controllers without reducing overall performance.

CCE4510 supports a wide supply voltage range from 8 to 32V with integrated over voltage detection as well as high current and temperature protection. Flexible configuration options are available with QFN48 7x7mm and QFN24 4x4mm optimised package variants.

CCE4510 provides the perfect solution for 2/4/8/16 port IO-Link master applications connecting IO-Link compliant industrial sensors and actuators.

<table>
<thead>
<tr>
<th><strong>Features</strong></th>
<th><strong>Benefits</strong></th>
<th><strong>Applications</strong></th>
</tr>
</thead>
</table>
| - Two IO-Link compliant channels with 1A peak driving current  
- Hardware frame handler (support for all IO-Link v1.1 frame types)  
- Fully IO-Link v1.1 compliant  
- Wide voltage range 8-32V  
- Transceiver mode  
- Integrated UART (COM1-3)  
- Completely automated wake-up procedure for master  
- Two status LED drivers  
- Synchronization features for IO-Link channels and LEDs over multiple chips  
- Includes NMOS gate drivers to switch power supply of devices  
- Supports feed through of clock  
- Temperature and supply voltage monitoring and protection  
- Overload protection for channels and connected devices  
- QFN48, 7x7mm and QFN24, 4x4mm package options | - Reduced processor loading with integrated Frame Handler  
- Flexible configuration supporting Master or Device  
- Full compatibility with industry standard software stack (TEConcept)  
- Optimized for 2/4/8/16 port IO-Link master applications | - Industrial Profibus / IO-Link Network  
- Industrial automation  
  - Sensors  
  - Actuators  
  - Hubs  
- High voltage level shifter |

**dialog SEMICONDUCTOR**
IO-Link Evaluation Boards

It is quick and easy to incorporate CCE4510 into an IO-Link system with the availability of a full evaluation board.

- Four active channel IO-Link Master reference design using two CCE4510 controlled by a single Cortex M3 processor
- Controlled via USB Interface or SPI Port
- Including 128 kbit EEPROM and four LED indicators
- IO-Link Physical Layer test available
- Compatible with CCE4502 evaluations boards providing an end-to-end system solution

Dialog Semiconductor Worldwide Sales Offices

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

United Kingdom
Phone: +44 1793 757700

Korea
Phone: +82 2 3469 8200

Hong Kong
Phone: +852 3769 5200

The Netherlands
Phone: +31 73 640 88 22

Germany
Phone: +49 7021 805-0

China (Shenzhen)
Phone: +86 755 2981 3669

Japan
Phone: +81 3 5769 5100

North America
Phone: +1 408 845 8500

China (Shanghai)
Phone: +86 21 5424 9058

Singapore
Phone: +65 648 499 29

Taiwan
Phone: +886 281 786 222

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.