



IO-Link communication master transceiver demonstration board based on the L6360, monolithic IO-Link master port

Data brief

Features

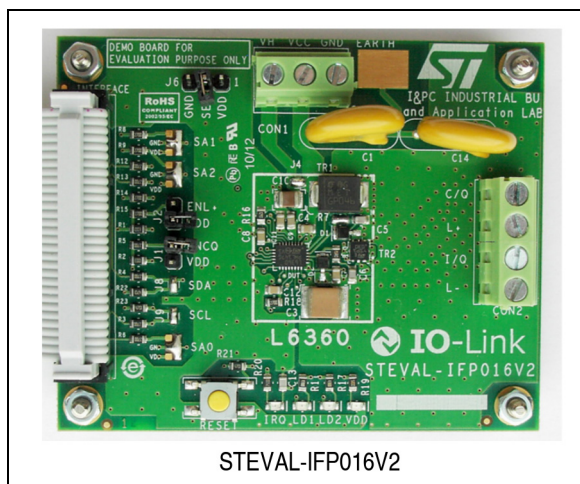
- Supply voltage from 18 V to 32.5 V
- Fully protected programmable output stages
- Supports COM1, COM2 and COM3 mode
- 5 mA IO-Link digital input
- Additional IEC61131-2 type-1 input
- 3.3 V / 5 V, 50 mA linear regulator
- Fast mode I²C for IC control, configuration and diagnostic
- Diagnostic dual LED sequence generator and driver
- 5 V and 3.3 V compatible I/Os
- Interface compatible with STEVAL-PCC009V2 and STEVAL-PCC009V1
- EMC immune application against ESD, burst, surge, RF noise, etc., according to IEC61000-4-2, IEC61000-4-4, IEC61000-4-5, and IEC61000-4-6 standards
- RoHS compliant

Description

The STEVAL-IFP016V2 IO-Link communication master transceiver demonstration board is based on the L6360, monolithic IO-Link master port. A modular and customizable application that interfaces externally with the microcontroller. The purpose of the board is to demonstrate the capability of the L6360 monolithic IO-Link master, as communication transceiver for multiple I/Os.

The board uses input signal from the microcontroller and outputs the 24 V required for industrial applications.

The board demonstrates that the L6360 is both IO-Link master port mode and standard IO mode compliant.



The interface is compatible with the STEVAL-PCC009V2 and STEVAL-PCC009V1 EMC-immune application against ESD, burst, surge, RF noise, etc., according to IEC61000-4-2, IEC61000-4-4, IEC61000-4-5, and IEC61000-4-6 standards.

A large GND area on the printed circuit board has been designed in order to minimize noise and ensure good thermal performance.

The small size of the L6360 package with a reduced pin number, along with the small size of the application area, allow the user to work in applications where space constraint is critical. The L6360 is a monolithic IO-Link master port, compliant with PHY2 (3 wires) supporting COM1 (4.8 kbaud), COM2 (38.4 kbaud) and COM3 (230.4 kbaud) modes. The output stage (high-side, low-side or push-pull) as well as the cutoff current, cutoff current delay time, and restart delay, are programmable by I²C protocol.

The cutoff current and cutoff current delay time, combined with the thermal shutdown and automatic restart, protect the device against overload and short-circuit. The output stages are able to drive resistive, inductive and capacitive loads. Fast demagnetization is able to dissipate the energy stored in the inductive loads.

2 Revision history

Table 1. Document revision history

Date	Revision	Changes
17-Apr-2012	1	Initial release.
25-Sep-2012	2	Updated: Description and title

Please Read Carefully:

Information in this document is provided solely in connection with ST products. STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, modifications or improvements, to this document, and the products and services described herein at any time, without notice.

All ST products are sold pursuant to ST's terms and conditions of sale.

Purchasers are solely responsible for the choice, selection and use of the ST products and services described herein, and ST assumes no liability whatsoever relating to the choice, selection or use of the ST products and services described herein.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted under this document. If any part of this document refers to any third party products or services it shall not be deemed a license grant by ST for the use of such third party products or services, or any intellectual property contained therein or considered as a warranty covering the use in any manner whatsoever of such third party products or services or any intellectual property contained therein.

UNLESS OTHERWISE SET FORTH IN ST'S TERMS AND CONDITIONS OF SALE ST DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY WITH RESPECT TO THE USE AND/OR SALE OF ST PRODUCTS INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION), OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

UNLESS EXPRESSLY APPROVED IN WRITING BY TWO AUTHORIZED ST REPRESENTATIVES, ST PRODUCTS ARE NOT RECOMMENDED, AUTHORIZED OR WARRANTED FOR USE IN MILITARY, AIR CRAFT, SPACE, LIFE SAVING, OR LIFE SUSTAINING APPLICATIONS, NOR IN PRODUCTS OR SYSTEMS WHERE FAILURE OR MALFUNCTION MAY RESULT IN PERSONAL INJURY, DEATH, OR SEVERE PROPERTY OR ENVIRONMENTAL DAMAGE. ST PRODUCTS WHICH ARE NOT SPECIFIED AS "AUTOMOTIVE GRADE" MAY ONLY BE USED IN AUTOMOTIVE APPLICATIONS AT USER'S OWN RISK.

Resale of ST products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by ST for the ST product or service described herein and shall not create or extend in any manner whatsoever, any liability of ST.

ST and the ST logo are trademarks or registered trademarks of ST in various countries.

Information in this document supersedes and replaces all information previously supplied.

The ST logo is a registered trademark of STMicroelectronics. All other names are the property of their respective owners.

© 2012 STMicroelectronics - All rights reserved

STMicroelectronics group of companies

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan - Malaysia - Malta - Morocco - Philippines - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America

www.st.com

AMEYA360

Components Supply Platform

Authorized Distribution Brand :



Website :

Welcome to visit www.ameya360.com

Contact Us :

➤ Address :

401 Building No.5, JiuGe Business Center, Lane 2301, Yishan Rd
Minhang District, Shanghai , China

➤ Sales :

Direct +86 (21) 6401-6692

Email amall@ameya360.com

QQ 800077892

Skype ameyasales1 ameyasales2

➤ Customer Service :

Email service@ameya360.com

➤ Partnership :

Tel +86 (21) 64016692-8333

Email mkt@ameya360.com