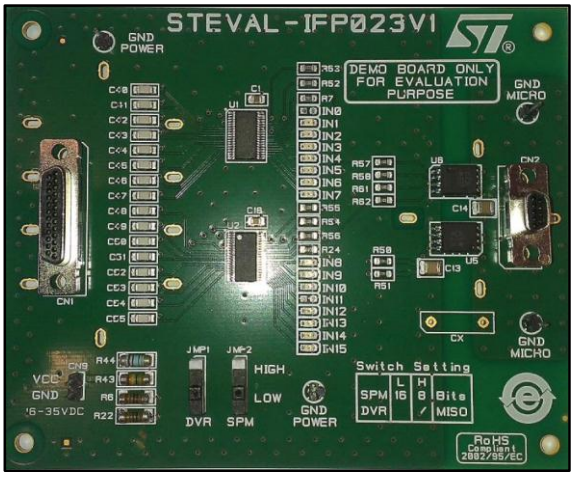
STEVAL-IFP023V1

16-bit digital input card based on the CLT01-38S4 high-speed protected digital termination array

Data brief



Features

- 8/16 input channel topology (CLT01-38S4 chip on STEVAL- IFP023V1 board)
- Fully integrated current limiter
- Termination for IEC 61131-2 type 1 and 3 inputs
- SPI communication peripheral working at high frequency
- Voltage regulator integrated on chip
- Thermal/voltage alarms and checksum
- Wide range supply voltage operation
- Low power dissipation compared to discrete solutions
- Low external component count
- Overvoltage protection
- ESD in accordance with IEC 61000-4-2, class 3, 8 kV air discharge, 6 kV contact discharge
- Excellent EMC immunity
  - High energy surge (IEC 61000-4-5), 2 kV / criteria “B” without external protection
  - Fast transient burst (IEC 61000-4-4), ± 3 kV criteria “A”
  - RF amplitude modulation (IEC 61000-4-6), 150 kHz - 80 MHz, 3 V / criteria “A”
- SPI bus provides cost-effective isolation
- Reduces overall dissipation
- Compact module HTSSOP-38 package
- RoHS compliant

Description

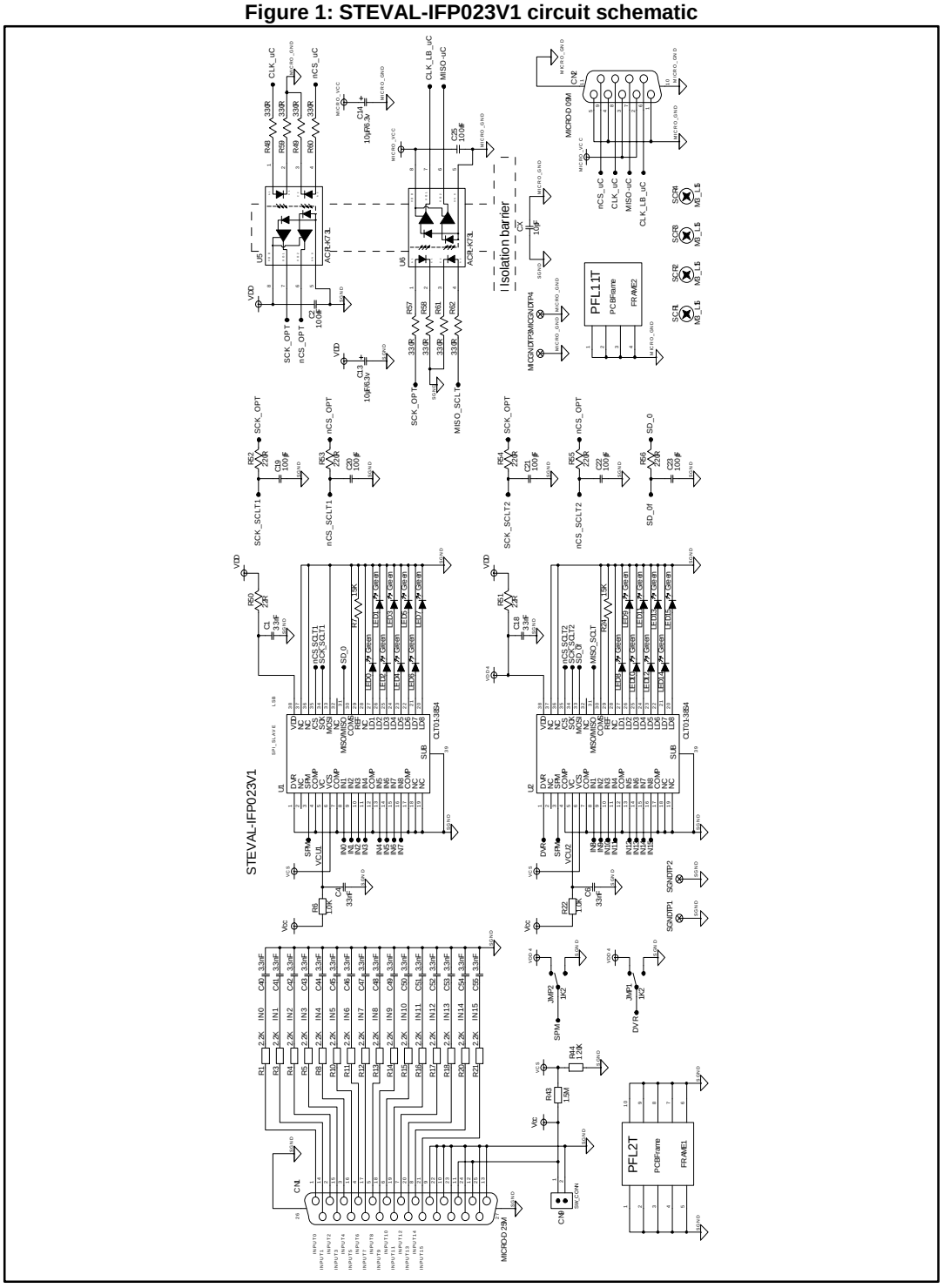
The STEVAL-IFP023V1 product evaluation board allows designers to evaluate the performance of the CLT01-38S4 high-speed protected digital termination array in industrial environmental conditions. The board includes two CLT01-38S4 chips connected to an SPI bus in a daisy chain configuration. It offers a 16-bit digital input interface and indicates each sensor logic state with an LED.

For further information contact your local STMicroelectronics sales office

www.st.com

1 Schematic diagram

Figure 1: STEVAL-IFP023V1 circuit schematic



2 Revision history

Table 1: Document revision history

Date	Rev	Changes
09-Dec-2014	1	First release.

IMPORTANT NOTICE – PLEASE READ CAREFULLY

STMicroelectronics NV and its subsidiaries (“ST”) reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST’s terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers’ products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2014 STMicroelectronics – All rights reserved