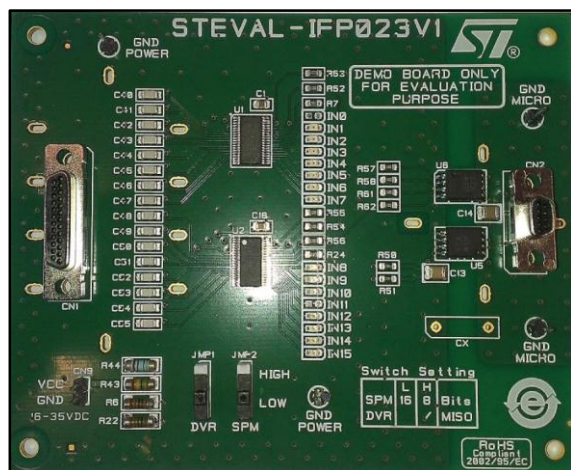


16-bit digital input card based on the CLT01-38S4 high-speed protected digital termination array

Data brief



- 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

Features

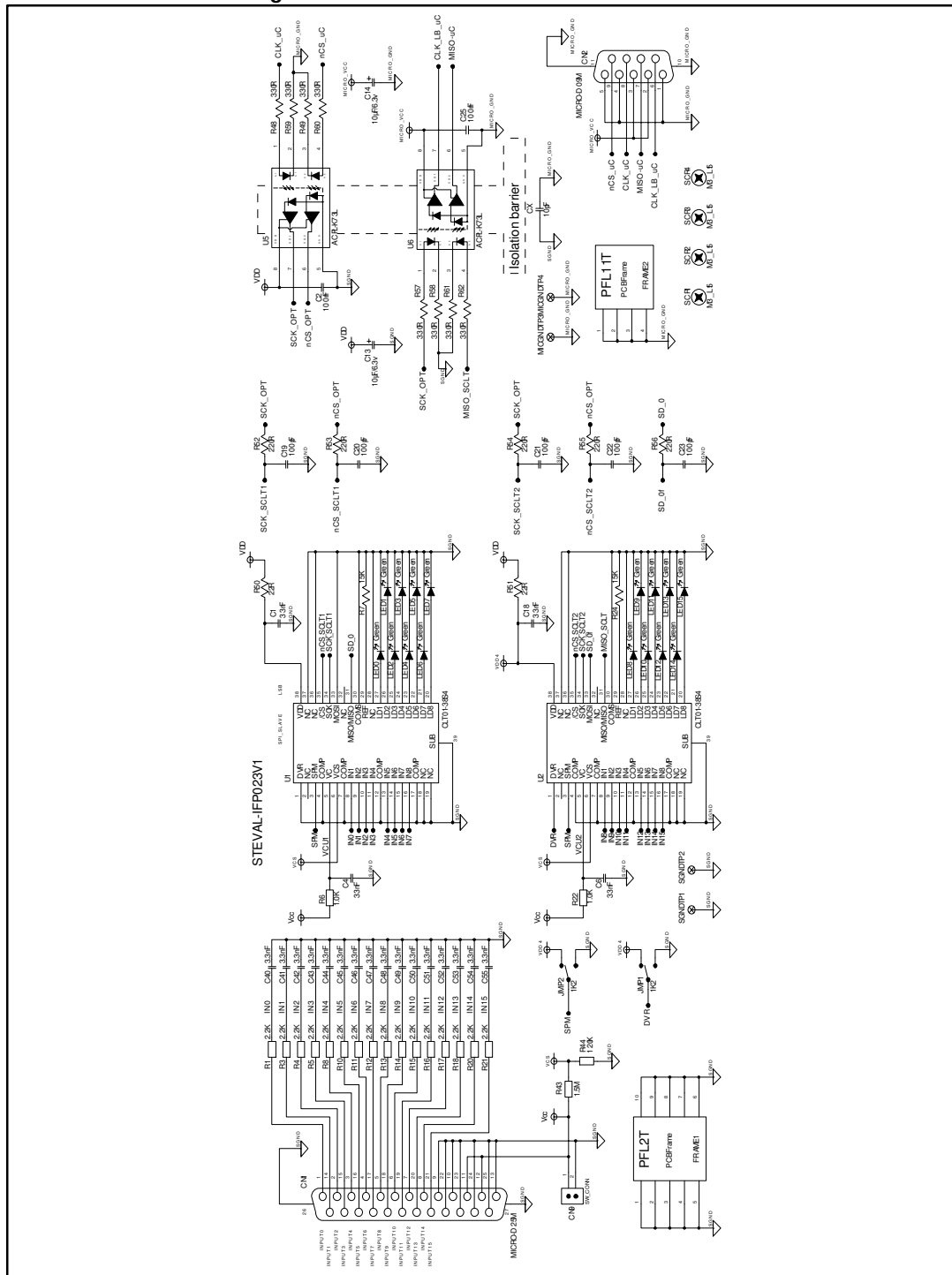
- 8/16 input channel topology (CLT01-38S4 chip on STEVAL-IFP023V1 board)
- Fully integrated current limiter
- Termination for IEC 61131-2 type 1 and 3 inputs
- SPI communication peripheral working at high frequency
- Voltage regulator integrated on chip
- Thermal/voltage alarms and checksum
- Wide range supply voltage operation
- Low power dissipation compared to discrete solutions

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.

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. |

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