



# STEVAL-IFP007V1

## 16-bit PLC digital input card demonstration board based on the SCLT3

Data brief

### Features

- 8/16 input channel topology (SCLT3-8 chip/STEVAL-IFP007V1 board)
- Fully integrated current limiter
- Termination for IEC61131-2 type 1 and 3 inputs
- Digital filter in each input
- SPI communication peripheral
- Voltage regulator integrated on the chip
- Thermal alarm
- Wide range supply voltage operation

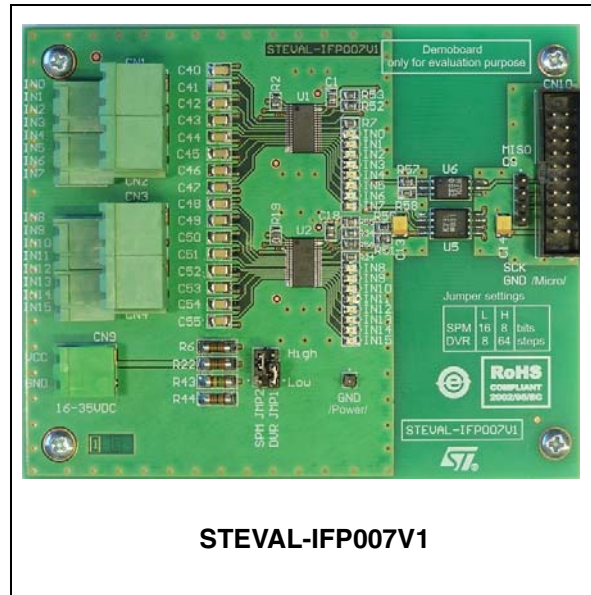
### Description

The STEVAL-IFP07V1 demonstration board is based on the SCLT3-8 protected digital input termination with serialized state transfer, and allows the user to evaluate the behavior of the SCLT3-8 device in industrial environmental conditions.

The SCLT3-8 is an eight channel termination used to interface automation digital inputs. It is designed for 24 VDC applications, and supports the type 3 input characteristic in accordance with standard IEC61131-2 (programmable controllers). The device integrates an SPI peripheral for communication with logic devices, ASICs and microcontrollers.

This demonstration board is capable of transferring not only the data but also additional information such as thermal alarms, under voltage indications and parity bits. The STEVAL-IFP07V1 is ideal for applications with a high channel count, while the serial communication reduces the number of lines which, in most final applications, require galvanic isolation.

The board accommodates two SCLT3-8 chips connected to the SPI bus in a "daisy-chain" configuration. It offers a 16-bit digital input

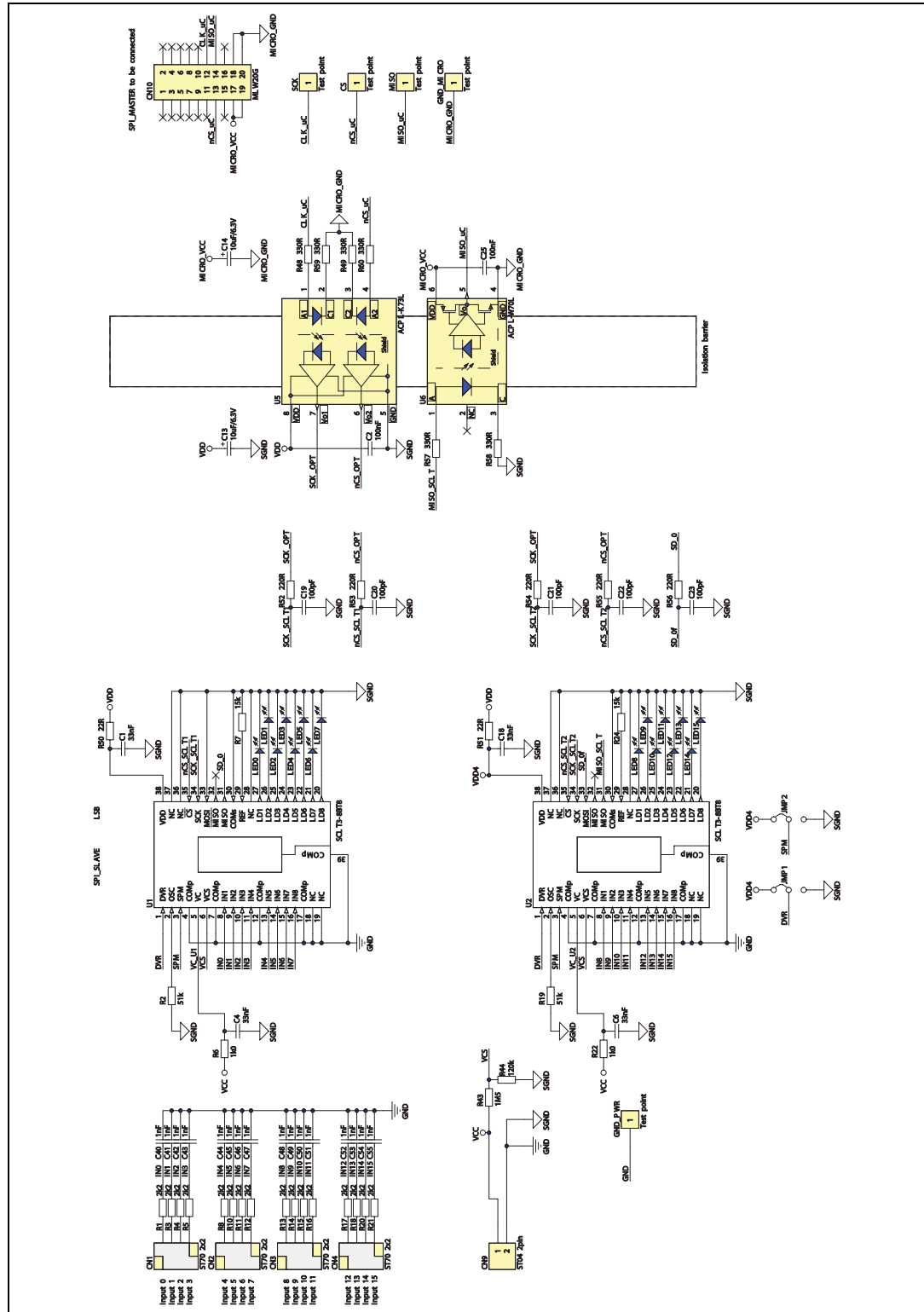


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interface and indicates each sensor logic state with an LED.

# 1 Circuit schematic

Figure 1. Schematic diagram



## 2 Revision history

**Table 1. Document revision history**

Date	Revision	Changes
17-Feb-2009	1	Initial release.
05-May-2009	2	Updated picture on cover page and schematic diagram ( <a href="#">Figure 1</a> )

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