

High speed digital input current limiter evaluation board based on SCLT3-8BQ7

Data brief



Features

- 8 inputs - 8-bit SPI output
- High side input with common ground
- 5 V voltage regulator
- Package: QFN 7 x 7 - 48L
- 30 V reverse polarity capable
- Adjustable current limiters
- LED output for visual status
- Optional 16-bit mode with parity check, temperature and voltage alarms
- Daisy chain capable
- Input digital filter with adjustable 20 to 160 μ s delay
- Power dissipation 78 mW per channel
- RoHS compliant

Description

This evaluation board implements an 8-line protected digital input termination with serialized state transfer for Programmable Logic Controllers. It is based on the SCLT3-8BQ7 device.

The SCLT3-8BQ7 enhances the I/O module density by cutting the dissipation (78 mW per input) and reducing the opto-transistor count. An adjustable digital filter and an LED driver are embedded in each input section. Its 2 MHz SPI peripheral output serializes the input state transfer to the I/O module controller.

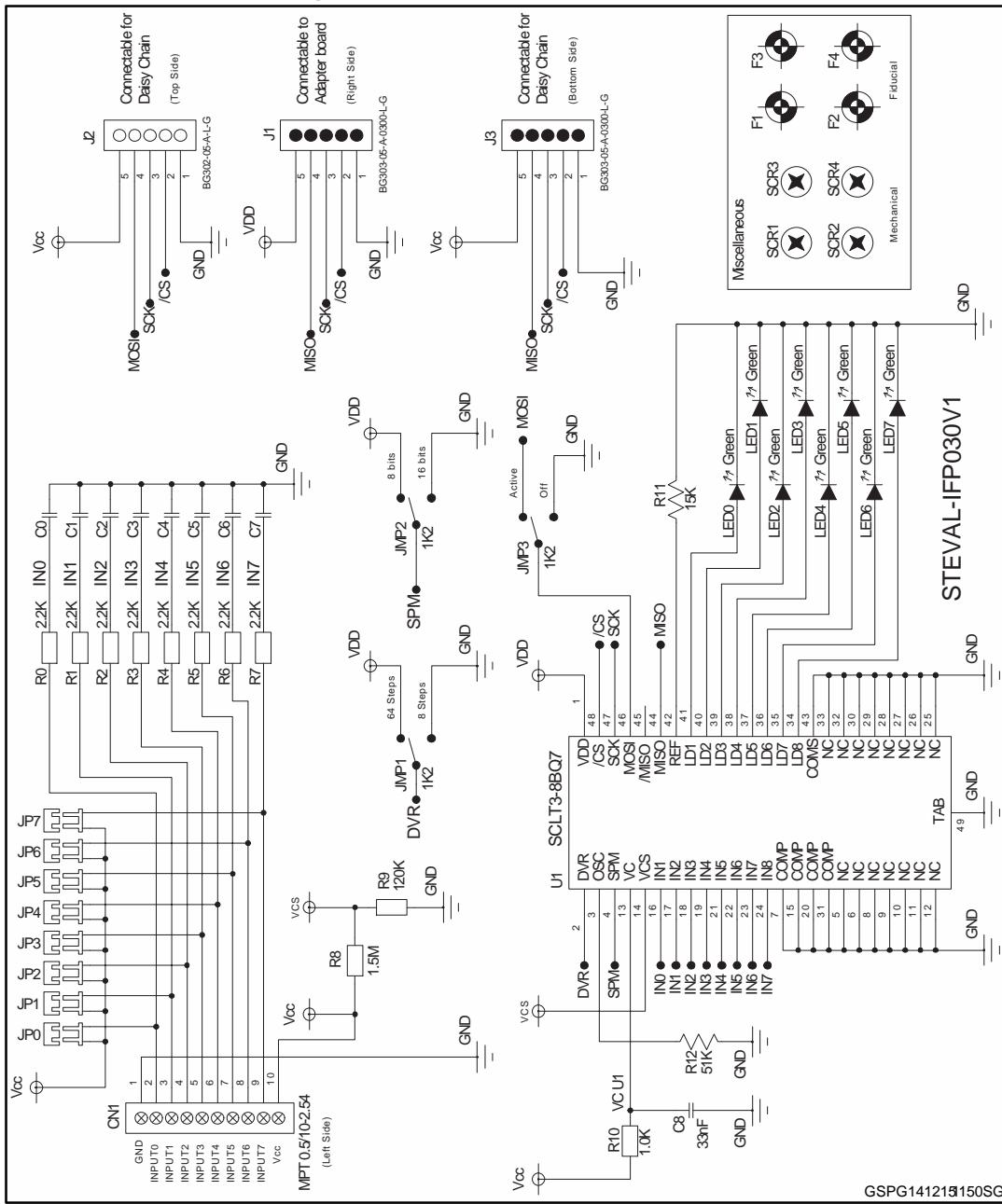
The STEVAL-IFP030V1 evaluation board illustrates the flexibility of the SCLT3-8BQ7 with: 8/16-bit mode with parity check, temperature and voltage alarms; daisy-chain capability; adjustable digital minimal filter time (20 μ s /160 μ s).

The STEVAL-IFP030V1 evaluation board can be chained with many other STEVAL-IFP030V1 evaluation boards.

The adapter board can be placed between the first STEVAL-IFP030V1 evaluation board of the chain and the STEVAL-PCC009V2 STM32x microcontroller evaluation board. This adapter provides 2 buses: isolated and non-isolated.

1 Schematic diagram

Figure 1: SCLT3-8BQ7 circuit schematic



2 Ordering information

To order the PLC digital input kit based on SCLT3-8BQ7, use the order codes STEVAL-IFP030V1 and STEVAL-PCC009V2.

3 Revision history

Table 1: Document revision history

Date	Version	Changes
17-Dec-2015	1	Initial release.

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