STEVAL-IFP015V2

Galvanically-isolated 8 channel high-side driver based on the ISO8200B

Data brief

STEVAL-IFP015V2

Features

- V_{CC} operating voltage from 10.5 to 33 V
- 0.7 A for each channel
- Reverse polarity protection on V_{CC} and V_{DD} supply voltage
- Digital supply voltage V_{DD} 3.3/5 V
- Microcontroller interface direct/synchronous mode communication
- Designed to meet requirements of IEC 61000-4-2, IEC 61000-4-4, IEC 61000-4-5 standards
- RoHS compliant

Description

The STEVAL-IFP015V2 demonstration board works in combination with the STEVAL-PCC009V2 or STEVAL-PCC009V1 interface board to allow evaluation of all the features of the ISO8200B device. A large GND area on the printed circuit board has been designed to minimize noise effects and ensure good thermal performance.

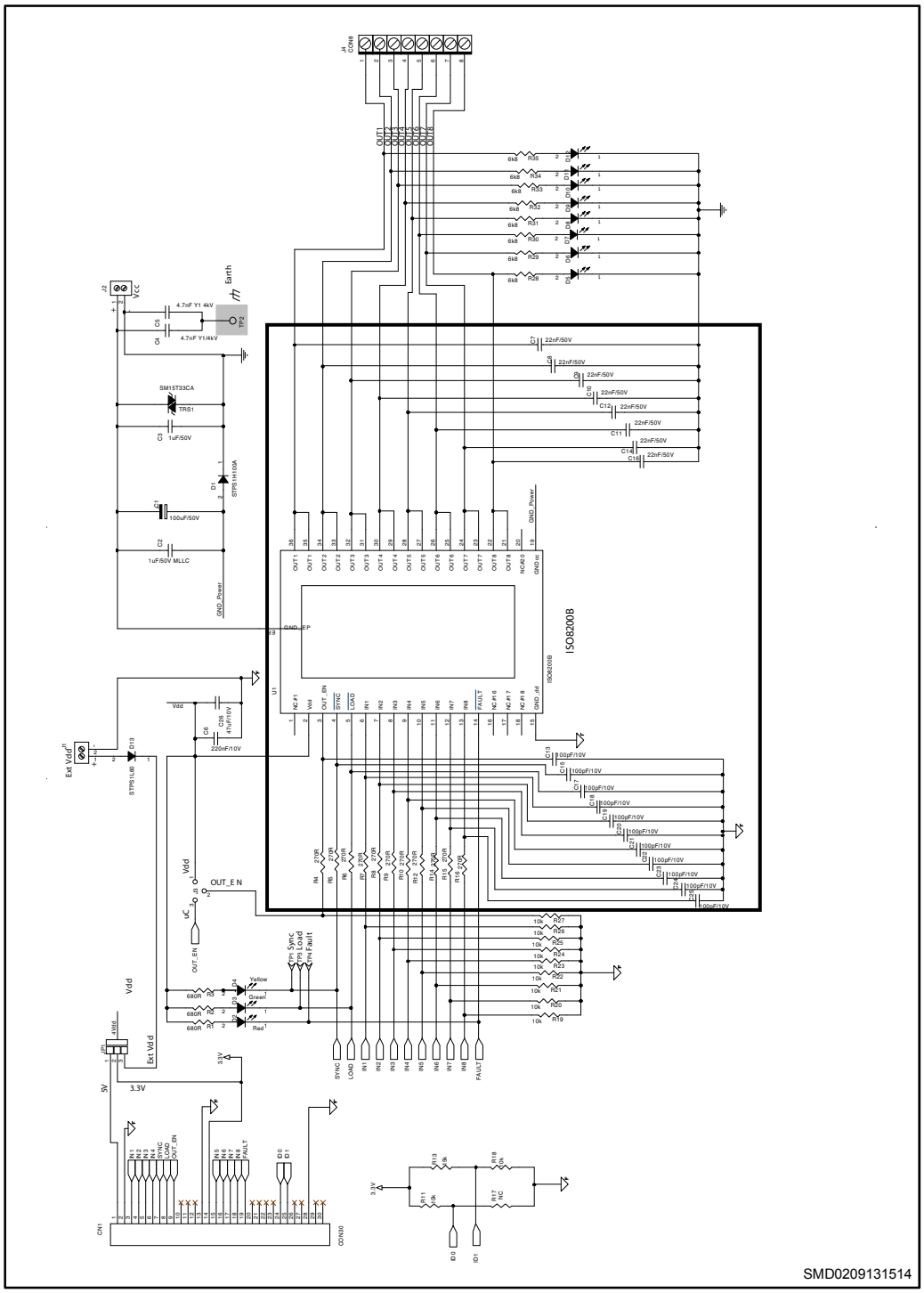
The ISO8200B is a galvanic isolated 8 channel driver featuring a very low supply current. It contains 2 independent galvanic isolated voltage domains (V_{CC} for the power stage and V_{DD} for the digital stage). The IC is intended to drive any type of load with one side connected to ground. Active channel current limitation combined with thermal shutdown, independent for each channel, and automatic restart protect the device against overload. Additional embedded functions are: loss of GND protection which automatically turns off the outputs in case of analog ground, undervoltage shutdown with hysteresis, and reset function for immediate power output shutdown.

Built-in thermal shutdown protects the chip against overtemperature and short-circuit. In overload condition, the channel turns off, then back on automatically after the IC temperature has decreased below a reset threshold. If this condition causes the case temperature to reach the TCR limit, the overloaded channel is turned off and will restart only when case and junction temperature have decreased down to the reset threshold. Non overloaded channels continue to operate normally.

An internal circuit provides an OR-wired non latched common FAULT indicator signaling channel OVT. The FAULT pin is an open-drain active-low fault indication pin.

1 Schematic diagram

Figure 1: STEVAL-IFP015V2 circuit schematic



2 Revision history

Table 1: Document revision history

Date	Revision	Changes
02-Sep-2013	1	Initial release.

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