STEVAL-IFP022V1

Eight-channel high-side driver based on the VNI8200XP

Data brief

Features

- Operating voltage: from 10.5 to 33 V
- Operating current: 0.7 A for each channel
- Reverse polarity protection
- High-speed opto-isolation for SPI and parallel communication
- Low-speed opto-isolation for device fault signaling
- Step-down converter for 3.3 V or 5 V
- Digital supply voltage
- LED matrix for channel status signaling
- Microcontroller interface
- Designed to meet EMC standard requirements: IEC 61000-4-2, IEC 61000-4-4, IEC 61000-4-5
- RoHS compliant

Description

The STEVAL-IFP022V1 demonstration board is based on VNI8200XP high-side driver. It was developed as an instrument to test device functionality in terms of power management and digital interface.

As required by industrial standards, the board's isolated interface between the IPS and host controller were implemented using high-speed opto-couplers for IPS driving, and low-speed opto-couplers to receive device status information. The connection is achieved through a 30-pin connector.

To provide a user-friendly way to test VNI8200XP device functionality, a GUI interface was developed. To use the GUI it is necessary to connect the STEVAL-IFP022V1 demonstration board to a PC by using a communication board (part number STEVAL-PCC009V2).

Thermal performance is improved thanks to a four-layer structure which makes it possible to design a copper area distributed in all the layers for more effective heat dissipation.

The STEVAL-IFP022V1 demonstration board meets EFT standard requirements IEC 61000-4-2, IEC 61000-4-4, IEC 61000-4-5.

1 Schematic diagram

Figure 1. STEVAL-IFP022V1 power section

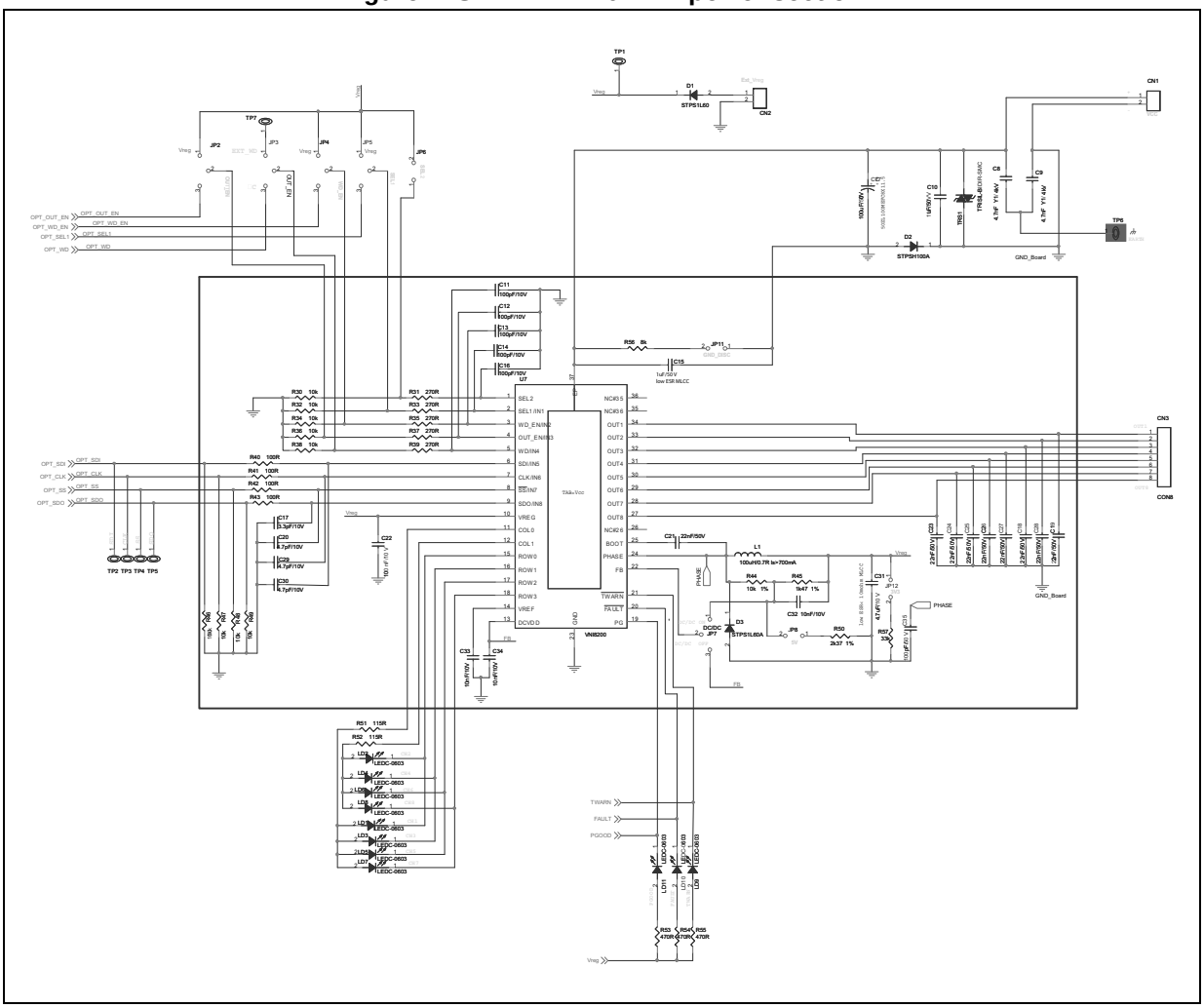
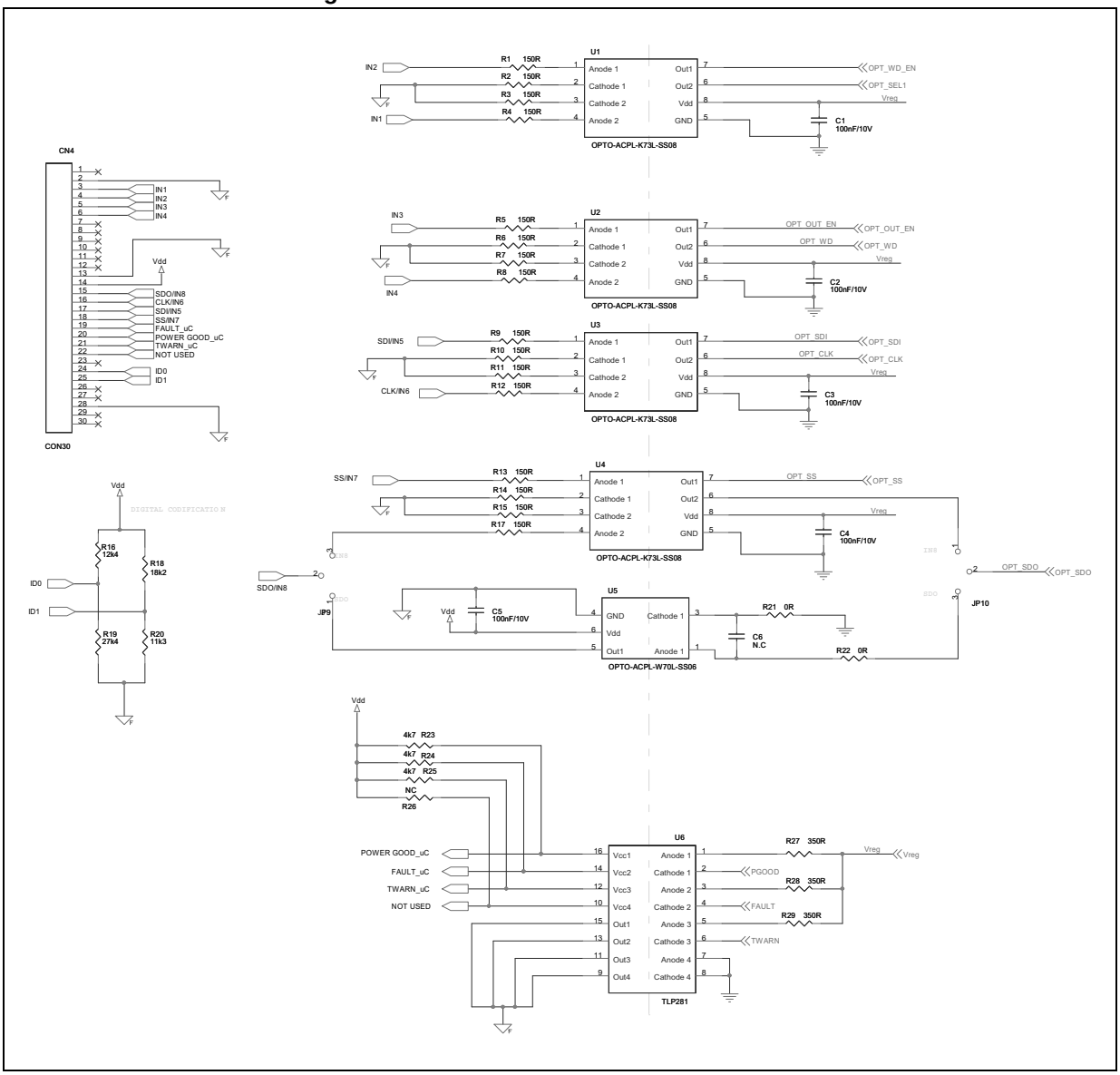


Figure 2. STEVAL-IFP022V1 interface section



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
19-Jul-2013	1	Initial release.

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