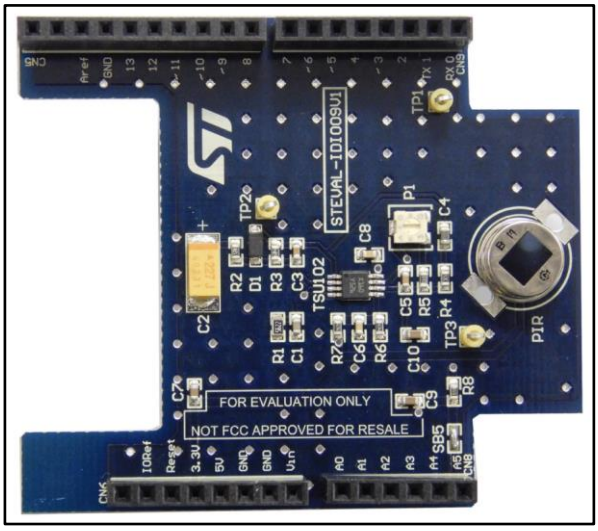
STEVAL-IDI009V1

Evaluation board for passive infrared sensor signal conditioning based on TSU102



Description

The STEVAL-IDI009V1 evaluation board conditions the signal generated by a passive infrared (PIR) sensor, for common applications like human detection. A person in range of the sensor triggers a detection event, which can in turn be used to trip an alarm or command room lighting to be turned on, for example.

The board embeds the TSU102 operational amplifier which consumes only 1 µA. It is highly suitable for battery powered applications such as LED lighting with embedded motion detection to enhance daily comfort.

The global application consumes only 24 µA when there is no detection.

Features

- Allows motion detection with PIR sensor
- Suitable for home automation applications
- Based on TSU102 operational amplifier
- Band pass filter bandwidth from 0.7 Hz to 5 Hz
- Only 24 µA current consumption
- Detection area can be widened with Fresnel lens(not included)
- Compatible with NUCLEO boards
- Compatible with Arduino UNO R3
- RoHS compliant

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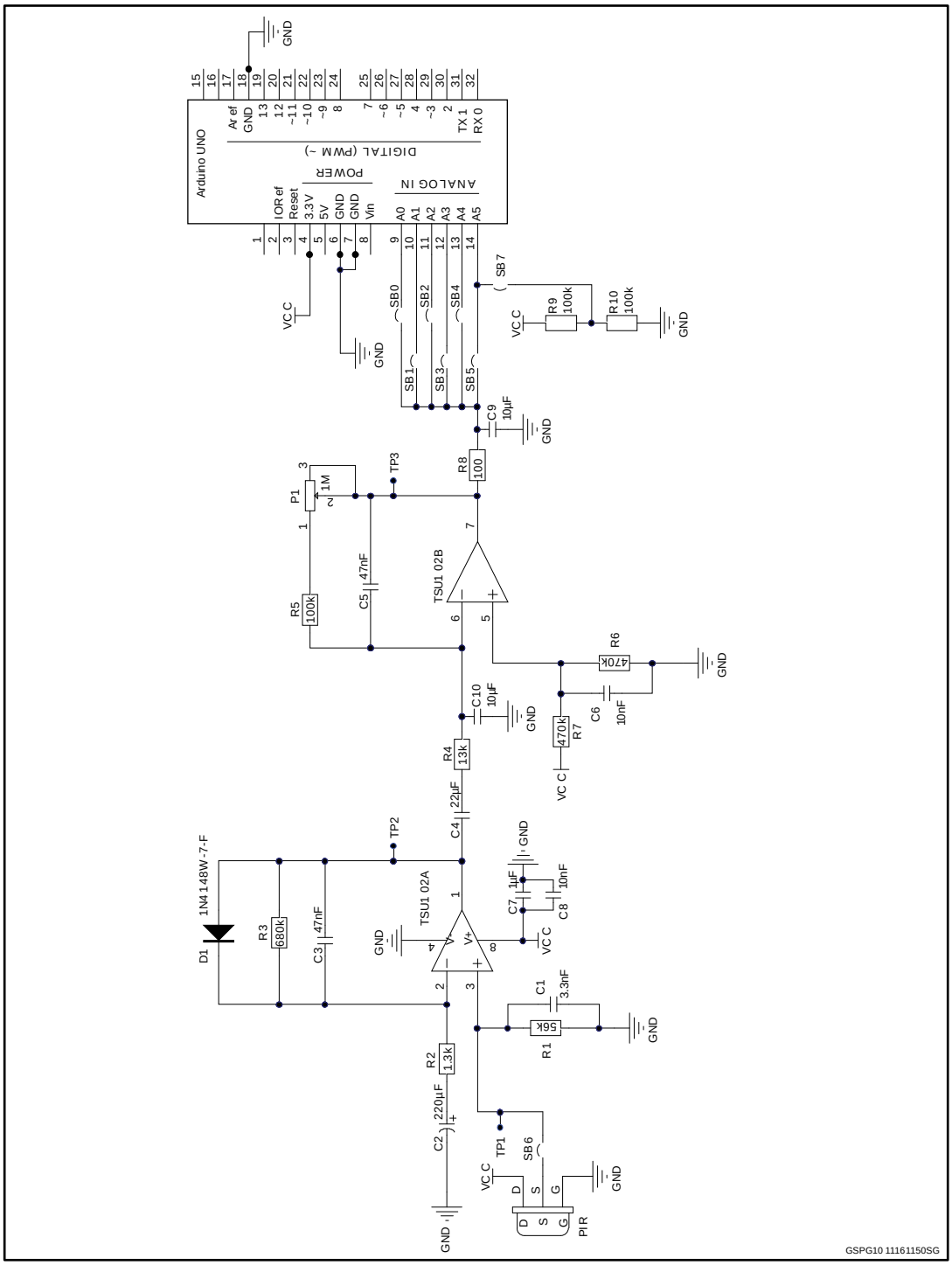
1 Schematic diagram

Figure 1: STEVAL-IDI009V1 circuit schematic



2 Revision history

Table 1: Document revision history

Date	Version	Changes
15-Nov-2016	1	Initial release.
10-May-2017	2	Updated *Section "Features"*. Minor text changes.