



STEVAL-ILD003V2

Analog wall dimmer for CFL/LED lamps
based on the TS820 (USA version 110 V)

Data brief

Features

- Line voltage: 98-132 V 60 Hz
- Maximum operating ambient temperature: 60 °C
- Incandescent 120 V lamp power:
 - Minimum power: 20 W
 - Maximum power: 350 W (with 27 °C/W heatsinks mounted on SCRs^(a) ^(b))
- Dimmable lamps that can be used:
 - CFL lamp (typically 14 W)
 - LED lamp (typically 8 W)
- RoHS compliant



Description

The purpose of the STEVAL-ILD003V2 demonstration board is to evaluate ST's SCR dimming solution for low-consumption lamps, particularly CFL and LED lamps, eliminating flicker and to be able to directly test most of the dimmable loads currently on the market.

Through-hole technology is used for the most important components such as the LC filter, gate resistor, turn-on delay capacitor, etc., in order to allow board modification, if needed.

AC light dimmers based on SCR dimming technology eliminate flickering as a continuous current is applied through the gate. An SCR dimmer can easily replace a standard low-cost analog Triac light dimmer using a Diac-controlled circuit.

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- a. Higher power can be reached with a different filter inductor and a bigger SCR heatsink
 - b. 200 W is the maximum allowed power without an SCR heatsink

2 Revision history

Table 1. Document revision history

Date	Revision	Changes
11-Nov-2011	1	Initial release.

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