



STEVAL-CCA009V1

High performance stereo headphone driver demonstration board
based on the TS4601B

Data brief

Features

- Power supply range: 2.9 V to 5.5 V
- 107 dB of PSRR at 217 Hz
- Fully differential inputs
- I²C interface for volume control
- Digital volume control range from -60 dB to +4 dB
- 101 dB of SNR A-weighted
- Independent right and left channel shutdown control
- Low quiescent current: 4.8 mA typ. at 3.0 V
- Low standby current: 2 μ A max
- RoHS compliant

Description

The STEVAL-CCA009V1 demonstration board is designed to evaluate the TS4601B, a stereo headphone driver dedicated to high audio performance and space constrained applications.

It is based on low power dissipation, amplifier core technology with capacitor-less outputs and an I²C interface.

The STEVAL-CCA009V1 demonstration board can drive at a minimum 0.9 V_{rms} output voltage into 16 Ω and 1.6 V_{rms} into 10 k Ω whatever the power supply voltage, in the range from 2.9 V to 5.5 V.

The I²C interface is used to control the volume by means of 64 steps from -60 dB to +4 dB and to configure the device in multiple modes.

The traditionally used output-coupling capacitors can be removed and a dedicated common-mode sense pin suppresses parasitic noise from the jack.

TS4601B control software is also provided.



1 Circuit schematic

Figure 1. TS4601 main application

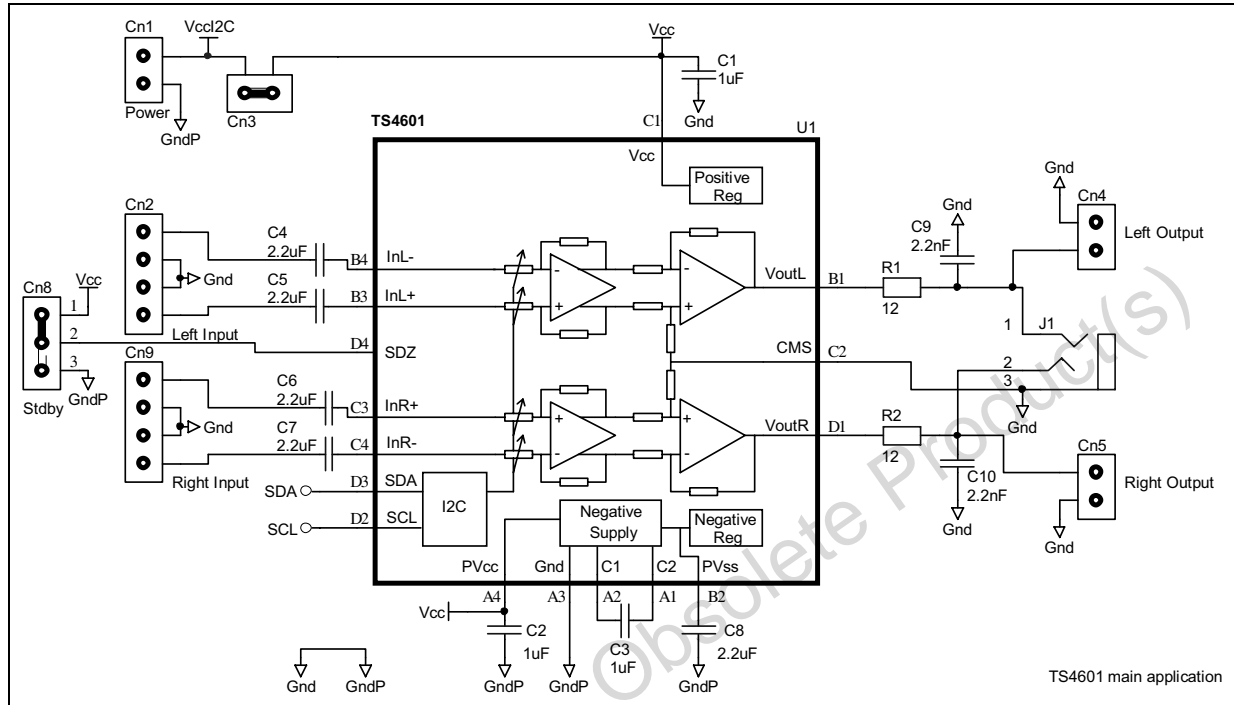
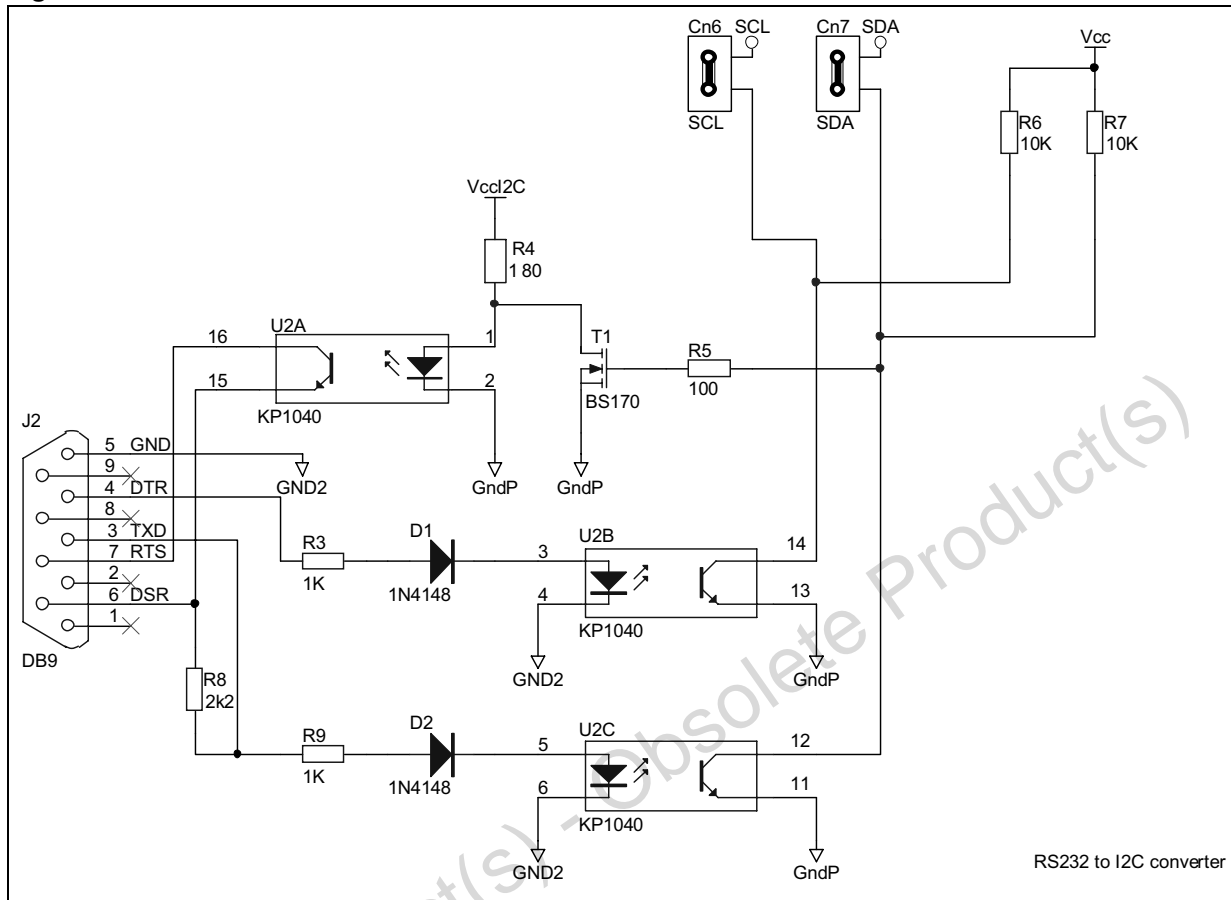


Figure 2. RS232 to I²C converter



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
19-Nov-2010	1	Initial release.

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