STEVAL-ISB001V1

Cell phone battery charger demonstration board based on the STD1LNK60Z-1

Data brief

Features

- Vac = 85 to 265 V
- Output voltage: 4.7 V
- Output power: 1.9 W
- RoHS compliant



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Description

The STEVAL-ISB001V1 demonstration board is a ringing choke converter (RCC)-based, step-by-step cell phone battery charger.

The RCC is essential to the self-oscillating flyback converter, and operates within the discontinuous conduction mode (DCM) and continuous conduction mode (CCM) boundaries without noticeable reverse recovery of the output rectifying diodes.

RCC control is achieved by using discrete components to control the peak current mode, so the overall RCC cost is relatively low compared to the conventional pulse width modulation (PWM) IC flyback converter. As a result, RCC is widely used for low-power applications in industry and home appliances as a simple and cost-effective solution.

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1 Circuit schematic

Figure 1. RCC control circuit components schematic

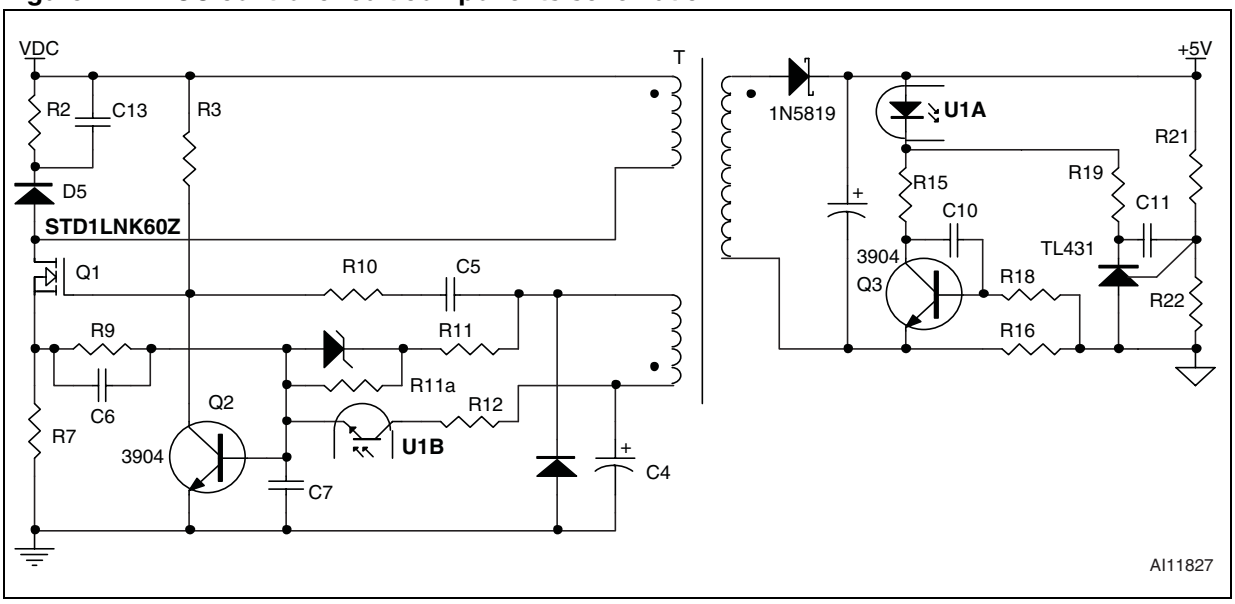
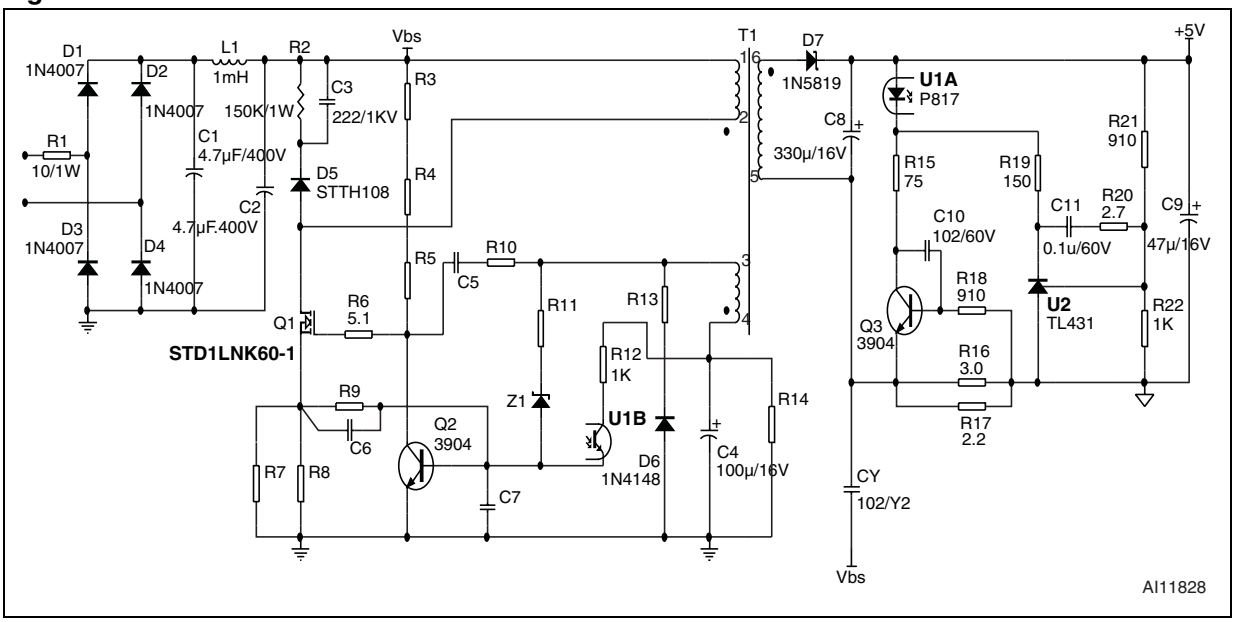


Figure 2. STD1LNK60Z-based RCC schematic



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
15-Dec-2010	1	Initial release.

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