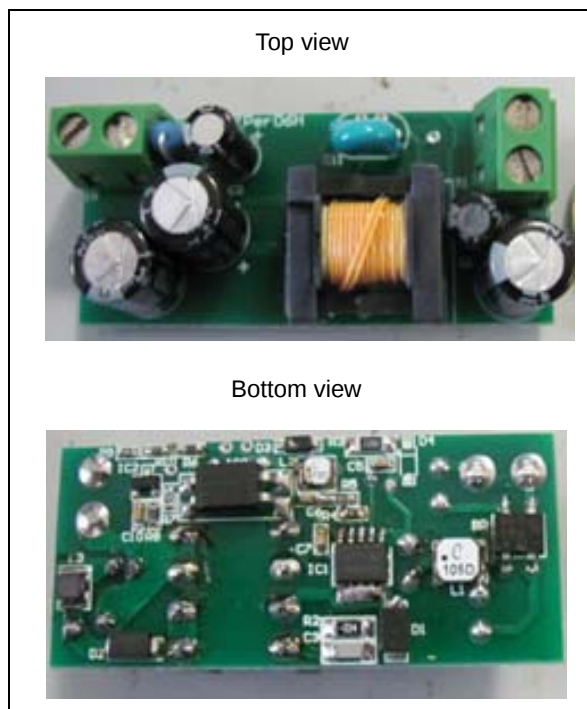

Demonstration board based on VIPer06 from the fixed-frequency VIPer™ plus family

Data brief



Description

The STEVAL-ISA137V1 demonstration board implements an isolated flyback (5 V / 0.6 A) 3 W wide-range mains developed for general-purpose applications.

The core of the application is the VIPer06HS, a new offline high voltage converter from the VIPer plus family.

The IC combines a high-performance low-voltage PWM controller chip and an 800 V, avalanche-rugged power MOSFET in the same package.

The main characteristics of the demonstration board are its small size, high efficiency and low standby consumption. Extremely low consumption under no-load conditions is ensured thanks to burst mode operation, which reduces the average switching frequency and minimizes all frequency-related losses.

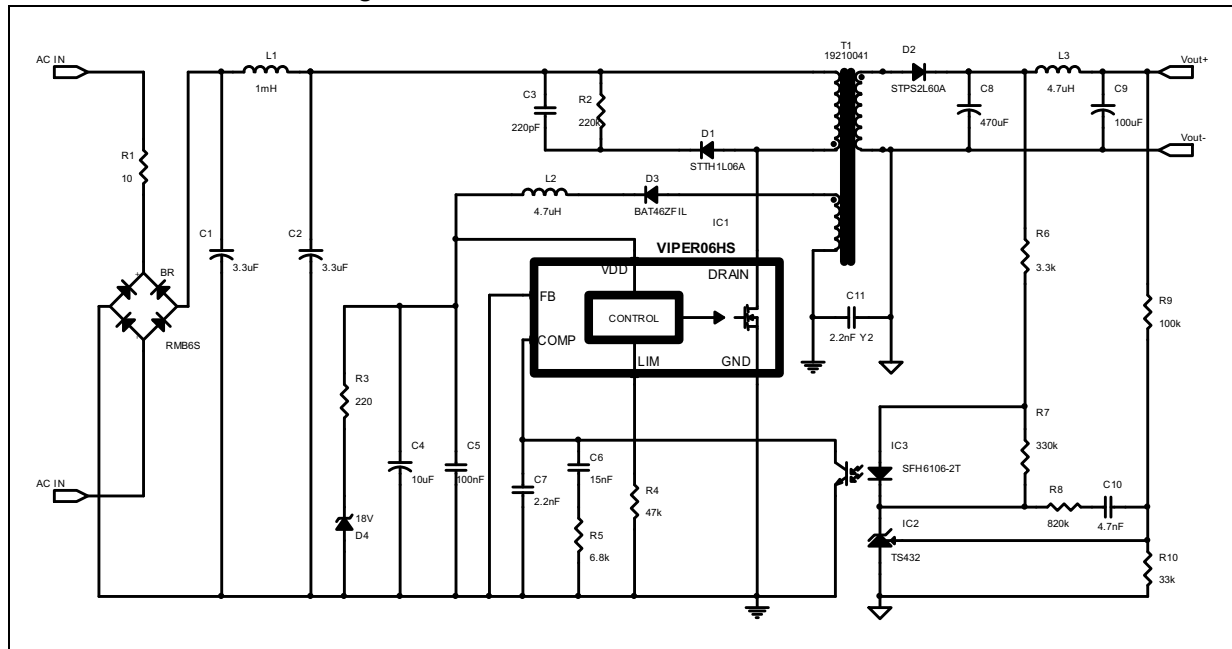
The VIPer06HS operates at fixed frequency, 115 kHz. Frequency jittering is implemented, enabling it to meet the standards for electromagnetic disturbance. Protection features on the device, such as delayed overload, open loop failure and hysteretic thermal protection, improve the reliability and safety of the design.

Features

- Universal input mains range: 85 - 265 V_{AC}, frequency: 50 - 60 Hz
- Output voltage: 5 V / 0.6 A
- Very compact size
- Standby mains consumption: < 30 mW at 230 V_{AC}
- Average efficiency: > 65%
- EMI: in accordance with EN55022-Class-B
- RoHS compliant

1 Schematic diagram

Figure 1. STEVAL-ISA137V1 circuit schematic



2 Revision history

Table 1. Document revision history

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

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