

5 V, 0.85 A flyback converter using VIPer™ Plus – VIPer01

Data brief

**Description**

The STEVAL-ISA177V1 evaluation board implements a wide-range converter in flyback non isolated topology, delivering 0.85 A on a 5 V output for general purpose applications.

The core of the application is the new VIPer01 offline high voltage converter from the VIPerPlus range that intelligently integrates an 800 V rugged power MOSFET with PWM current-mode control.

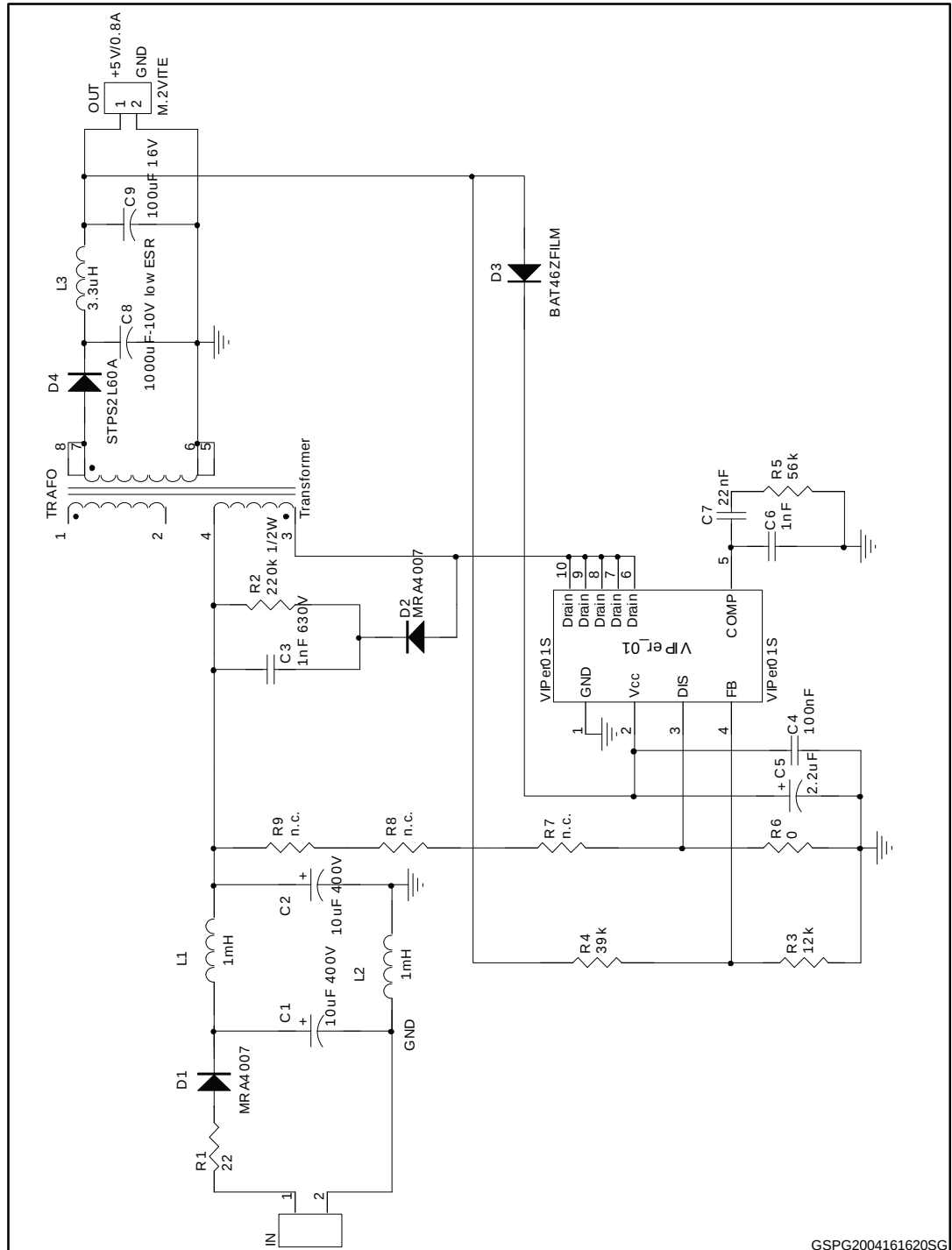
The main characteristics of the evaluation board are its single layer, small size with minimal BOM, high efficiency and low standby consumption.

Features

- Universal AC main input voltage range: 85V_{AC} to 265V_{AC}
- Output range: 15 V / 0.85 A
- Rated output power: 4.25 W
- Input power in standby @ 230 V_{AC}: < 9 mW
- Active mode efficiency: > 74%
- EMI: according to EN55022-Class-B
- RoHS compliant

1 Schematic diagram

Figure 1: STEVAL-ISA177V1 circuit schematic



2 Revision history

Table 1: Document revision history

Date	Version	Changes
26-Apr-2016	1	Initial release.

IMPORTANT NOTICE – PLEASE READ CAREFULLY

STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers' products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2016 STMicroelectronics – All rights reserved