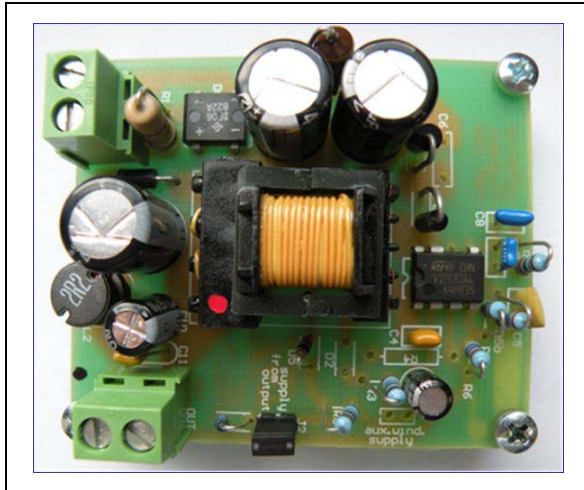

16 V - 280 mA non isolated off-line high voltage converter based on the VIPer16

Data brief

reach very low standby consumption ($< 50 \text{ mW}$ at $265 \text{ V}_{\text{ac}}$), while in the latter the IC is supplied by an internal current generator, thus eliminating the cost of the transformer auxiliary winding.

- Protection features available include thermal shutdown with hysteresis and delayed overload protection.

Features

- Input voltage range V_{IN} : $90 \text{ V}_{\text{RMS}} - 265 \text{ V}_{\text{RMS}}$
- Output voltage V_{OUT} : 16 V
- Max output current I_{OUT} : 0.28 A
- Precision of output regulation $V_{\text{OUT_LF}}$: $\pm 5\%$
- High frequency output voltage ripple $V_{\text{OUT_HF}}$: 50 mV
- Max ambient operating temperature T_{A} : $60 \text{ }^{\circ}\text{C}$
- RoHS compliant

Description

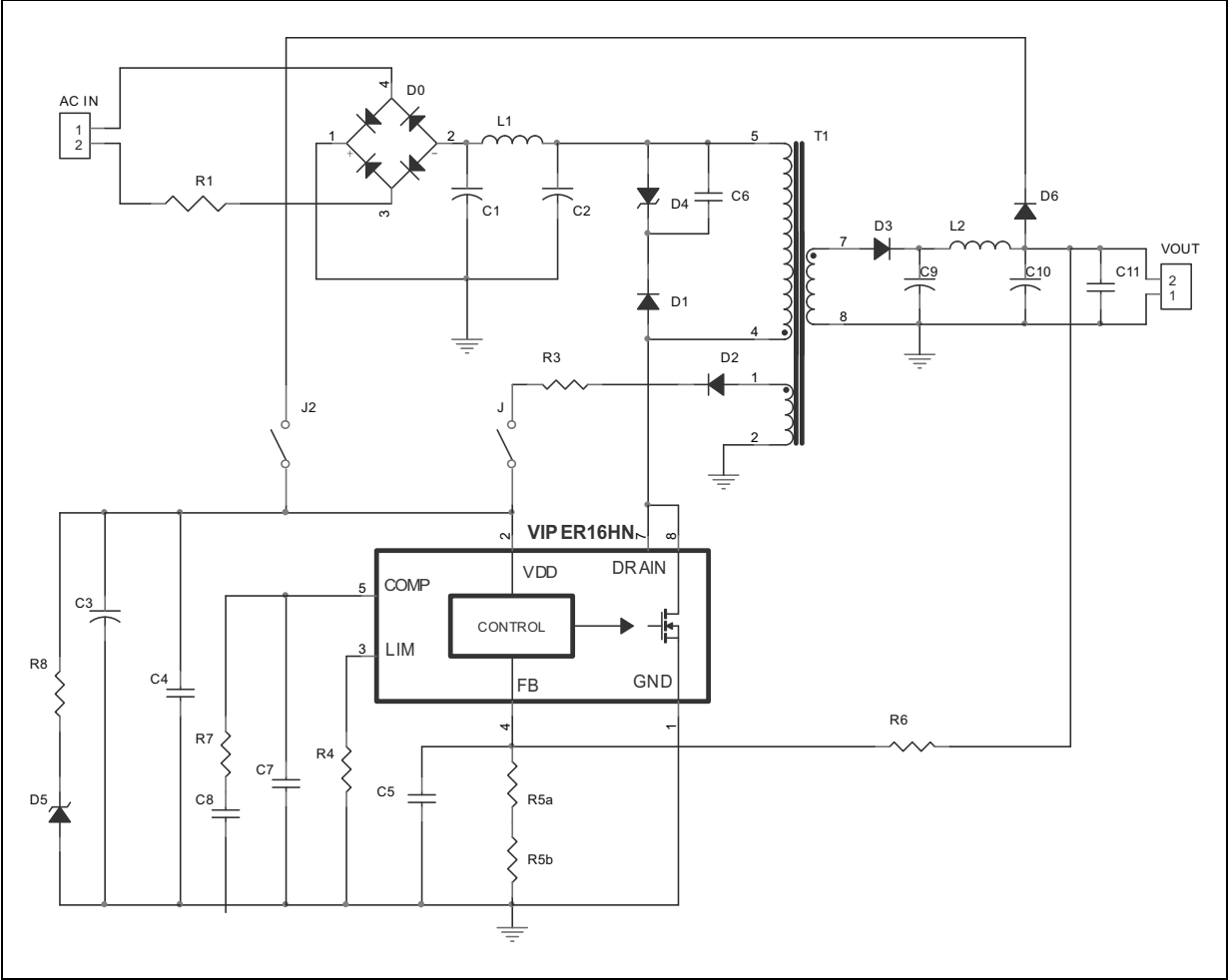
The STEVAL-ISA129V1 demonstration board is a $16 \text{ V} - 280 \text{ mA}$ application set in non isolated flyback topology using the VIPer16, a new off-line high voltage converter by STMicroelectronics.

The VIPer16 features an 800 V avalanche rugged power section, PWM operation at 115 kHz with frequency jittering for lower EMI, limiting current with adjustable set point, on-board soft-start, and safe auto-restart after a fault condition.

Moreover, the VIPer16 can work with or without the auxiliary winding. In the former case, it can

1 Schematic diagram

Figure 1. STEVAL-ISA129V1 circuit schematic



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
16-Apr-2013	1	Initial release.

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