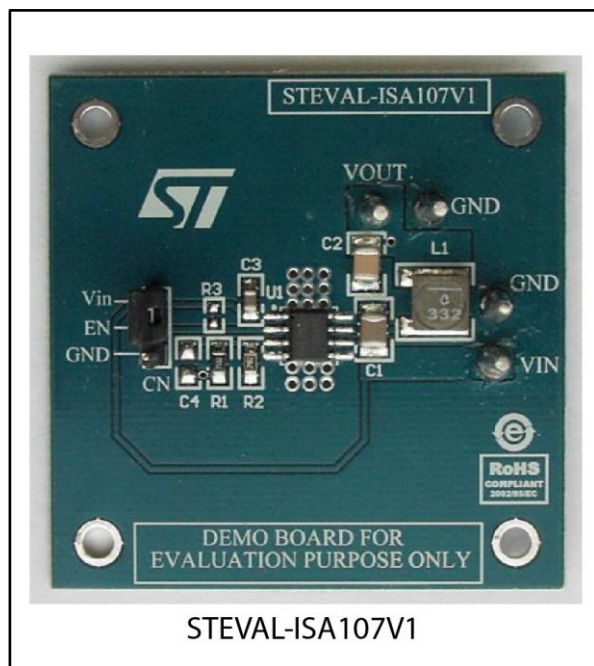


## 4 A, 850 kHz fixed-frequency PWM synchronous step-down converter based on ST1S41PHR

Data brief



- Internal soft-start
- Integrated 95 mΩ and 69 mΩ Power MOSFETs
- All ceramic capacitor
- Enable
- Cycle by cycle current limiting
- Current fold back short circuit protection
- RoHS compliant

### Description

The STEVAL-ISA107V1 is a product evaluation board to aid in testing and designing with the ST1S41 in an SO-8 ePad package. The application is an internally-compensated 850 kHz fixed-frequency PWM synchronous step-down converter.

The ST1S41 operates from 4.0 V to 18 V input, while it regulates an output voltage as low as 0.8 V and up to  $V_{IN}$  (100% duty-cycle).

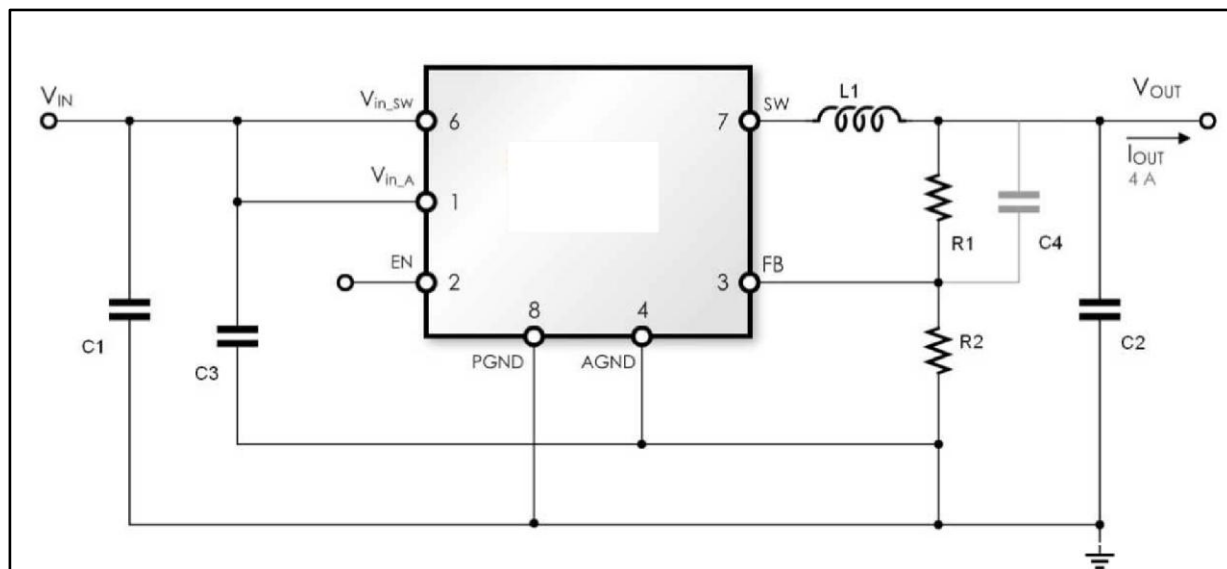
The ST1S41 integrates a 95 mΩ high side switch and a 69 mΩ low side synchronous rectifier allowing very high efficiency with very low output voltages. The peak current mode control with internal compensation delivers very compact solution with a minimum component count.

### Features

- 4.0 V to 18 V input voltage
- Output voltage adjustable from 0.8 V
- 850 kHz switching frequency

## Application schematic

Figure 1: Application schematic



# 1 Revision history

Table 1: Document revision history

| Date        | Revision | Changes          |
|-------------|----------|------------------|
| 18-Oct-2013 | 1        | Initial release. |

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