



## STEVAL-ISA028V1

Single phase 20 A step-down converter evaluation board  
based on the L6727

Data Brief

### Features

- BOM optimized for 12 V input / 1.25 V output @ 20 A
- High flexibility to host wide range designs
- Customizable output voltage
- L6726A / L6727 compatibility
- Controller input voltage ( $V_{CC}$ ) range from 5 V to 12 V
- Conversion input voltage ( $V_{IN}$ ) up to 13.2 V
- DPAK / SO-8 / PowerSO-8 / PowerFLAT MOSFET compatibility
- Multi-footprint for input and output capacitors
- Through-hole / SMD inductor compatibility
- 4-layer PCB

### Description

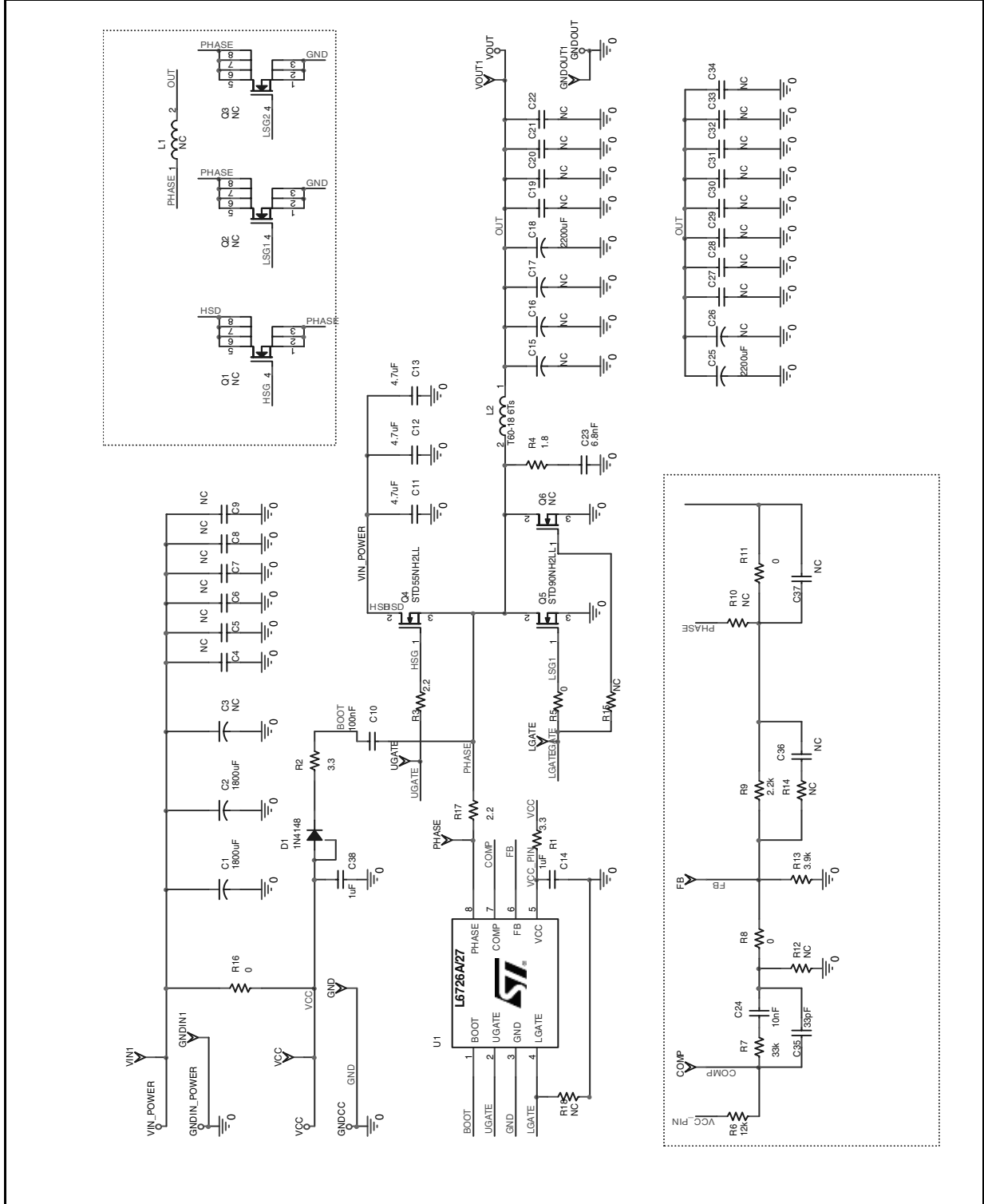
This evaluation board demonstrates the key features of STMicroelectronics' L6727, a new powerful new buck controller. The L6727 makes the design of complete step-down voltage regulators simple and cost effective. It provides a full solution by integrating a 0.8 V reference, control logic and protection, and NMOS drivers in an 8-pin package. The L6727 evaluation board implements a step-down DC/DC converter in a four-layer PCB and demonstrates the operation of the device in a general-purpose application. The input voltage can range from 5 V to 12 V and the output voltage is fixed at 1.25 V. The application can deliver an output current up to 20 A. Airflow must be applied with current higher than 18 A (@ $V_{IN} = 5$  V). The switching frequency is 300 kHz.



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# 1 Board schematic

Figure 1. Schematic



## 2 Revision history

**Table 1. Document revision history**

<b>Date</b>	<b>Revision</b>	<b>Changes</b>
10-Jul-2007	1	Initial release
06-Dec-2007	2	Content reworked to improve readability. No content change.

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