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STEVAL-ISA024V1

20 A step-down DC-DC converter demonstration board with 3.3 V_{out} and 250 kHz switching frequency, based on the L6725

Data Brief

Features

- Input voltage, V_{IN}: from 4.5 V to 14 V
- Output voltage: 3.3 V
- Selectable switching frequency: 250 kHz / 500 kHz
- Over-voltage protection
- Thermal shutdown

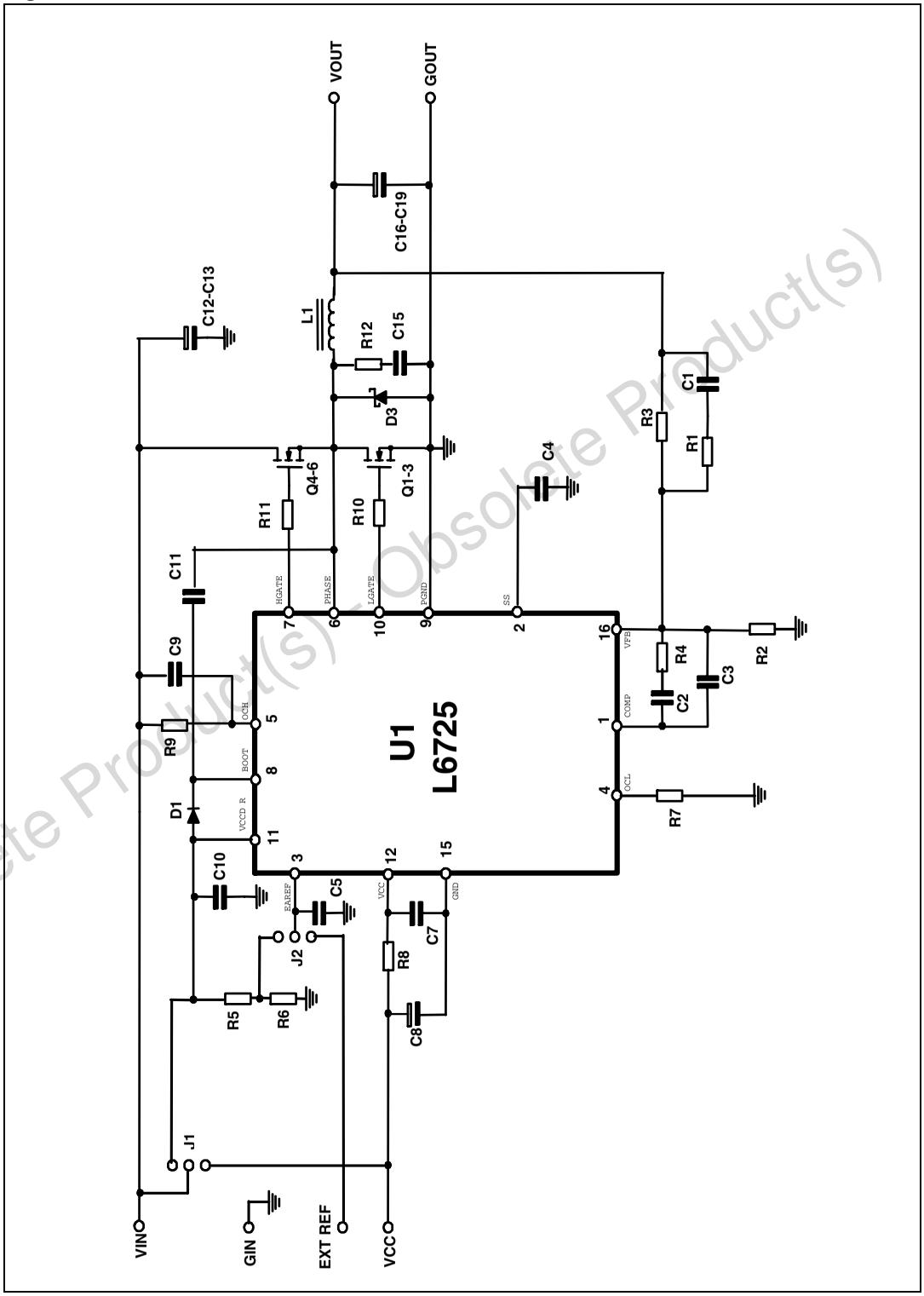
STEVAL-ISA024V1

Description

This 4-layer PCB demonstration board is designed as a step-down DC-DC converter to demonstrate the operation of the L6725 device in a general-purpose application. The input voltage can range from 4.5 V to 14 V with an output voltage of 3.3 V. The module can deliver an output current in excess of 20 A. The L6725 device can manage minimum ON times (T_{ON}) shorter than 100 ns. This makes possible conversions with very low duty cycles and very high switching frequencies. The switching frequency is initially set at 250 kHz (controller free-running FSW), but a switching frequency of 500 kHz can also be selected.

1 Board schematic

Figure 1. Schematic



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
02-Sep-2008	1	Initial release.

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