

1.5 A step down switching regulator ($V_{IN} = 8$ to 55 V) based on L4971

Data brief



Description

The STEVAL-ISA202V1 product evaluation board provides a platform for evaluation of the L4971, a 1.5 A asynchronous step-down power switching regulator with zero load current operation capability.

Based on the selection of the external components, the device can operate in the entire input voltage range of $8\text{ V} < V_{IN} < 55\text{ V}$. The output voltage is limited by the voltage rating of the output capacitor, so it can be adjusted within the $3.3\text{ V} < V_{OUT} < 30\text{ V}$ range through voltage divider R2, R3.

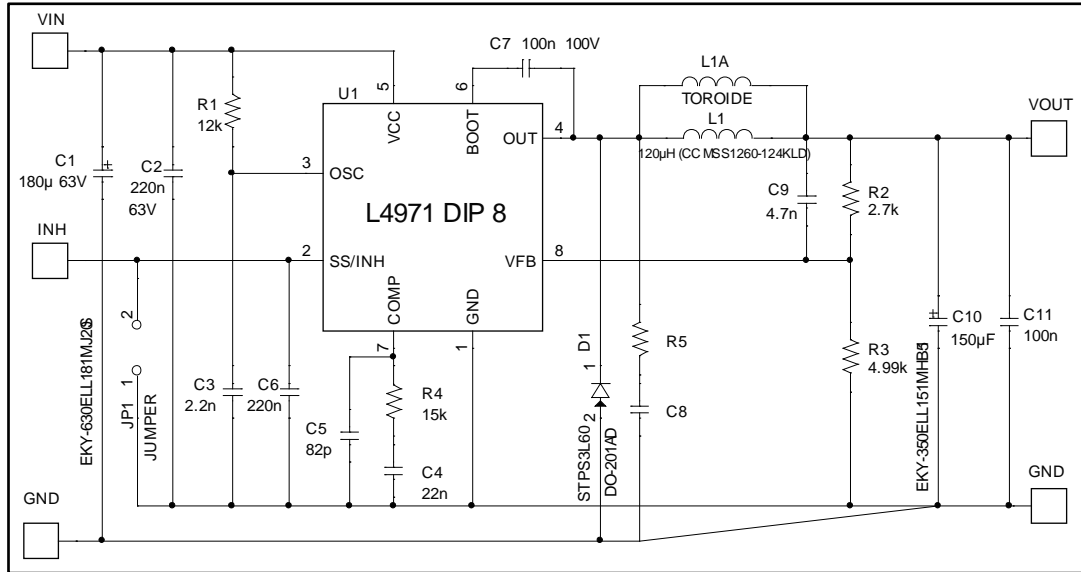
The input and output capacitors are capable of sustaining the RMS current within the operating range.

Features

- Input voltage range: 8 V to 55 V
- Output voltage: $5.1\text{ V} \pm 3\%$ (line, load and thermal)
- Output ripple: less than 51 mV
- Output current range: up to 1.5 A
- Max output ripple current: 30%
- Current limit: 2.5 A typ.
- Switching frequency: 200 kHz
- RoHS compliant

1 Schematic diagram

Figure 1: STEVAL-ISA202V1 circuit schematic



2 Revision history

Table 1: Document revision history

Date	Version	Changes
04-Aug-2017	1	Initial release.

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