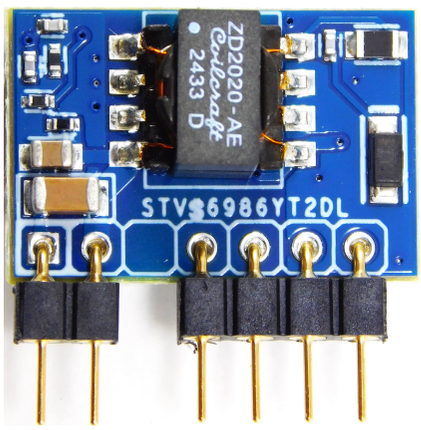
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STEVAL-6986YT2DL

Data brief

5W dual isolated output, SIP7 compatible, isobuck-boost converter based on A69868I



Product summary	
5W dual isolated output, SIP7 compatible, isobuck-boost converter based on A69868I	STEVAL-6986YT2DL
Automotive 38 V, 5W synchronous iso-buck converter	A6986I
Applications	Main inverter (electric traction) On board charger (OBC)

Features

- Isobuck-boost topology
- Up to 24 V operating input voltage
- Compatible with SIP7 modules
- Up to 5 W isolated output capability
- 20 V/-5V isolated output voltages
- Isolated outputs are available at pins 4-5-6 or 5-6-7 (selectable)
- 250 kHz switching frequency
- Protections against overvoltage, overcurrent, and overtemperature events

Description

The STEVAL-6986YT2DL is an evaluation board based on A6986I.

The STEVAL-6986YT2DL implements an isobuck-boost topology. The input voltage can go up to 24 V.

Thanks to the embedded two secondary windings transformer, a dual isolated output is available (around 20 V and around -5V).

The isolated output power can reach 5 W.

The peculiarity of this board is its compatibility with a SIP7 module both in terms of pinout and concerning the size.

Further flexibility is achieved by matching SIP7 modules with different output voltage pinouts (available on pins 4-5-6 or 5-6-7)

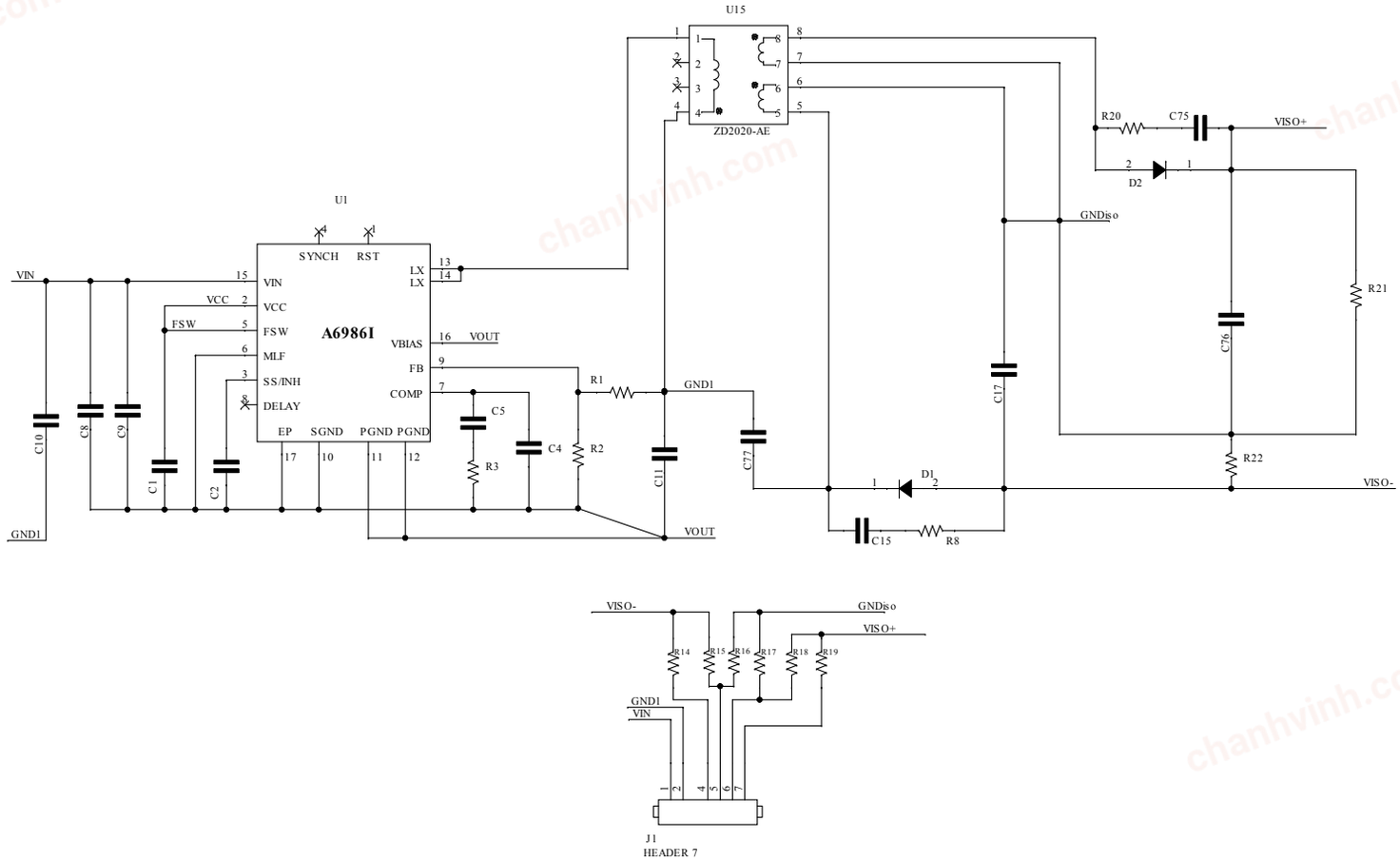
The STEVAL-6986YT2DL works at 250 kHz switching frequency and embeds all the standard protections offered by the A6986I (against overvoltage, overcurrent and overtemperature events).

The embedded transformer offers 1.5 kV isolation.

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1 Schematic diagrams

Figure 1. **STEVAL-6986YT2DL circuit schematic**



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2 Board versions

Table 1. STEVAL-6986YT2DL versions

Finished good	Schematic diagrams	Bill of materials
STV$6986YT2DL (1)	STV$6986YT2DL schematic diagrams	STV$6986YT2DL bill of materials

1. *This code identifies the STEVAL-6986YT2DL evaluation board first version.*

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Revision history

Table 2. **Document revision history**

Date	Revision	Changes
09-Apr-2025	1	Initial release.

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