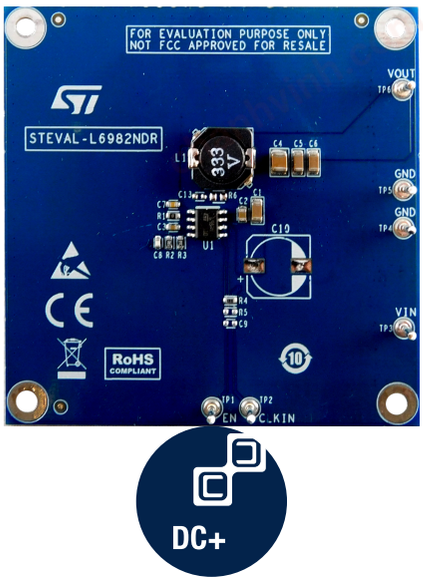
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STEVAL-L6982NDR

Data brief

38 V, 2 A synchronous step-down switching regulator evaluation board based on the L6982NDR



Features

- 3.5 V to 38 V operating input voltage
- Programmable output voltage from 0.85 V to VIN
- 3.3 V and 5 V fixed output voltage versions
- 2 A DC output current
- Low operating quiescent current (LCM and fixed Vout part numbers)
- Internal compensation network
- Two different versions: LCM for high efficiency at light loads and LNM for noise sensitive applications
- 2 µA shutdown current
- Internal soft start
- Enable function
- Overvoltage protection
- Output voltage sequencing
- Thermal protection
- SO 8L package
- Synchronization to external clock for LNM devices

Product summary	
38 V, 2 A synchronous step-down switching regulator evaluation board based on the L6982NDR (Low Noise Mode, Adjustable Vout)	STEVAL-L6982NDR
38 V, 2 A synchronous step-down converter with low quiescent current	L6982NDR
Applications	Power tools

Description

The STEVAL-L6982NDR evaluation board is based on the L6982NDR synchronous monolithic step-down regulator capable of delivering up to 2 A DC to the load.

Its wide input voltage range makes the device suitable for a broad range of applications.

The device implements peak current mode architecture in a SO 8L package with internal compensation to minimize design complexity and size.

The L6982 is available both in low consumption mode (LCM) and low noise mode (LNM) versions.

LCM maximizes efficiency at light-load with controlled output voltage ripple, which is ideal for battery-powered applications.

LNM makes the switching frequency constant and minimizes the output voltage ripple overload current range, meeting the specification for noise sensitive applications.

The EN pin provides enable/disable function. The typical shutdown current is 2 µA when disabled.

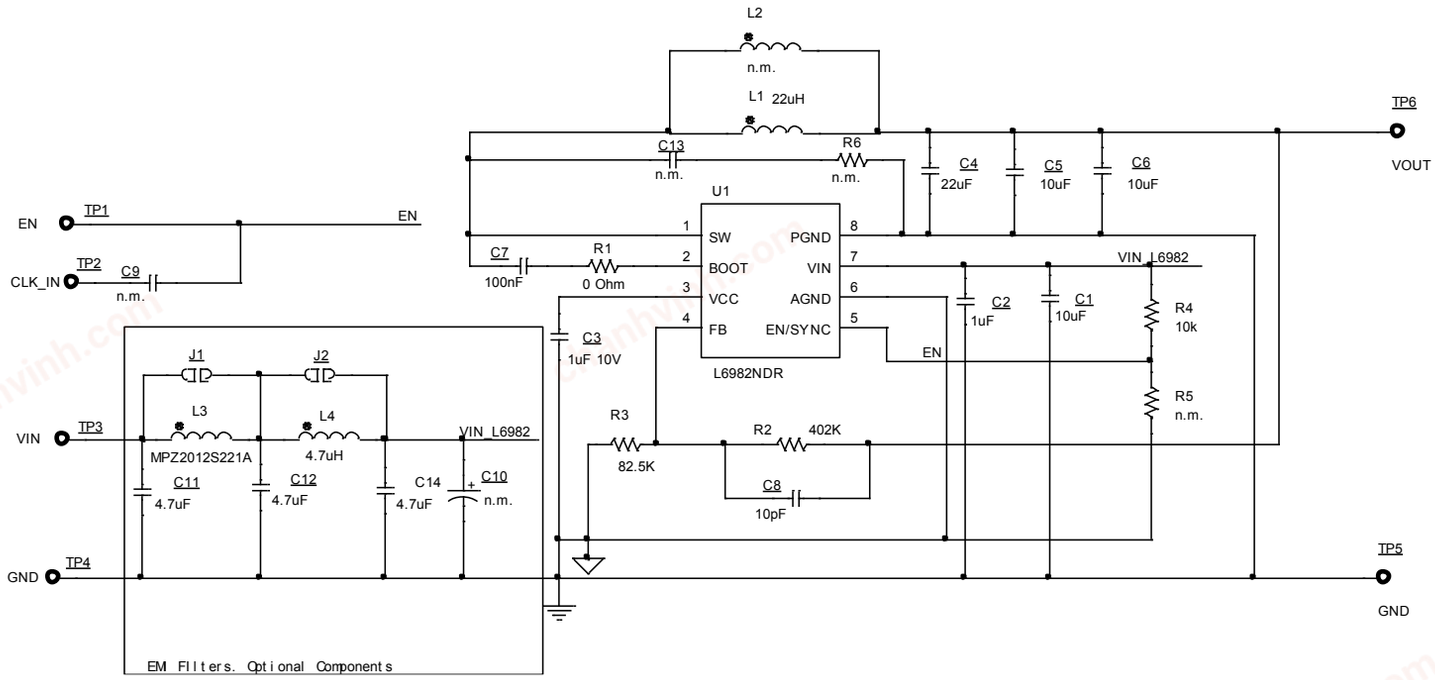
When the EN pin is pulled up, the device is enabled and the internal 1.3 ms soft start takes place.

Pulse-by-pulse current sensing on both power elements implements effective constant current protection and thermal shutdown prevents thermal run-away.

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1 Schematic diagrams

Figure 1. **STEVAL-L6982NDR circuit schematic**



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Revision history

Table 1. **Document revision history**

Date	Revision	Changes
21-Jun-2021	1	Initial release.

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