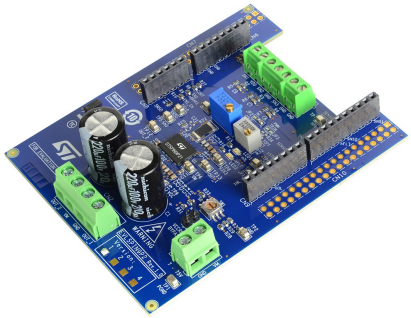
EVLSPIN9P2

Data brief

Demonstration board for STSPIN9P2 full-bridge system-in-package



Features

- Power system-in-package integrating gate driver and high-current power MOSFETs:
  - $R_{DS(ON)}$ = 27 mΩ
- Up to 75 V and 6 A_{rms} output current
- Programmable output slew rate
- Two input modes (ENx/INx or PWM/PH)
- Single shunt current sensing topology
- Integrated current limiter with adjustable reference
- Uncommitted comparator output (for specific part numbers) for external trigger (cycle-by-cycle current regulation)
- Input connector for 3 external sensors (e.g. Hall-effect based sensors)
- Open-load detection
- Thermal shutdown, UVLO, and overcurrent protection
- Standby mode
- X-Nucleo form factor with Arduino® connectors
- RoHS compliant

Product status link
EVLSPIN9P21
EVLSPIN9P22
EVLSPIN9P23
EVLSPIN9P24

Applications

- Stage lighting
- Factory automation
- ATM and money handling machines
- Textile machines
- Home appliances
- Robotics

Description

The EVLSPIN9P2 demonstration board is a full-bridge power board, which allows the evaluation of all the STSPIN9P2 features.

The board is designed to support a single shunt current sensing topology.

The board can be stacked with an X-Nucleo MCU control board through Arduino® connectors or driven directly by external pins.

The STSPIN family is growing with the introduction of the STSPIN9P series. The STSPIN9P2 is a high-density power driver integrating gate drivers and four N-channel power MOSFETs in full-bridge configuration.

The device has dedicated input pins for each output and one or two enable pins. The logic inputs are CMOS/TTL compatible down to 3.3 V for easy interfacing with control devices.

1 Specifications

Ratings of the board can be found in Table 1.

Table 1. EVLSPIN9P2 - specifications

Parameter		Value
Supply voltage	Nominal	From 7 V to 75 V
Maximum current	Continuous (1)	6 A_{rms}
	Peak (2)	13 A
Maximum power	Continuous (1)	300 W

1. *At 25 °C ambient temperature.*
2. *Typical value at 25°C ambient temperature.*

Revision history

Table 2. **Document revision history**

Date	Version	Changes
19-Jan-2026	1	Initial release.

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