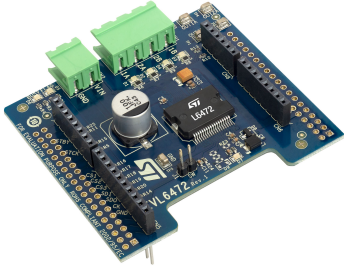


Stepper motor driver evaluation board based on the L6472 device



Features

- Voltage range from 8 V to 45 V
- Phase current up to 3 A_{r.m.s}
- Power OK and fault LEDs
- Advanced current control
- Fully protected power stage
- Microstepping resolution up to 1/16
- Compatible with Arduino® UNO R3 connector
- Suitable for multi-motor solutions
- RoHS compliant

Description

The [EVL6472](#) is a stepper motor driver evaluation board based on the L6472.

It provides an affordable and easy-to-use solution to drive a stepper motor in your application.

The L6472 device, created using analog mixed signal technology, is an advanced, fully integrated solution suitable for driving two-phase bipolar stepper motors with microstepping. It integrates a dual low R_{dsON} DMOS full bridge with an accurate on-chip current sensing circuitry suitable for non dissipative current control and overcurrent protection. Thanks to a new current control, a 1/16-microstepping is achieved through an adaptive decay mode which outperforms traditional implementations. The digital control core can generate user-defined motion profiles with acceleration, deceleration, speed, or target position, which are easily programmed through a dedicated set of registers. All application commands and data registers, including those used to set analog values (that is: current control value, current protection trip point, dead time, etc.) are sent through a standard 5-Mbit/s SPI. A complete set of protections (thermal, low bus voltage and overcurrent) makes the L6472 device “bullet proof”, as required by the most demanding motor control applications.

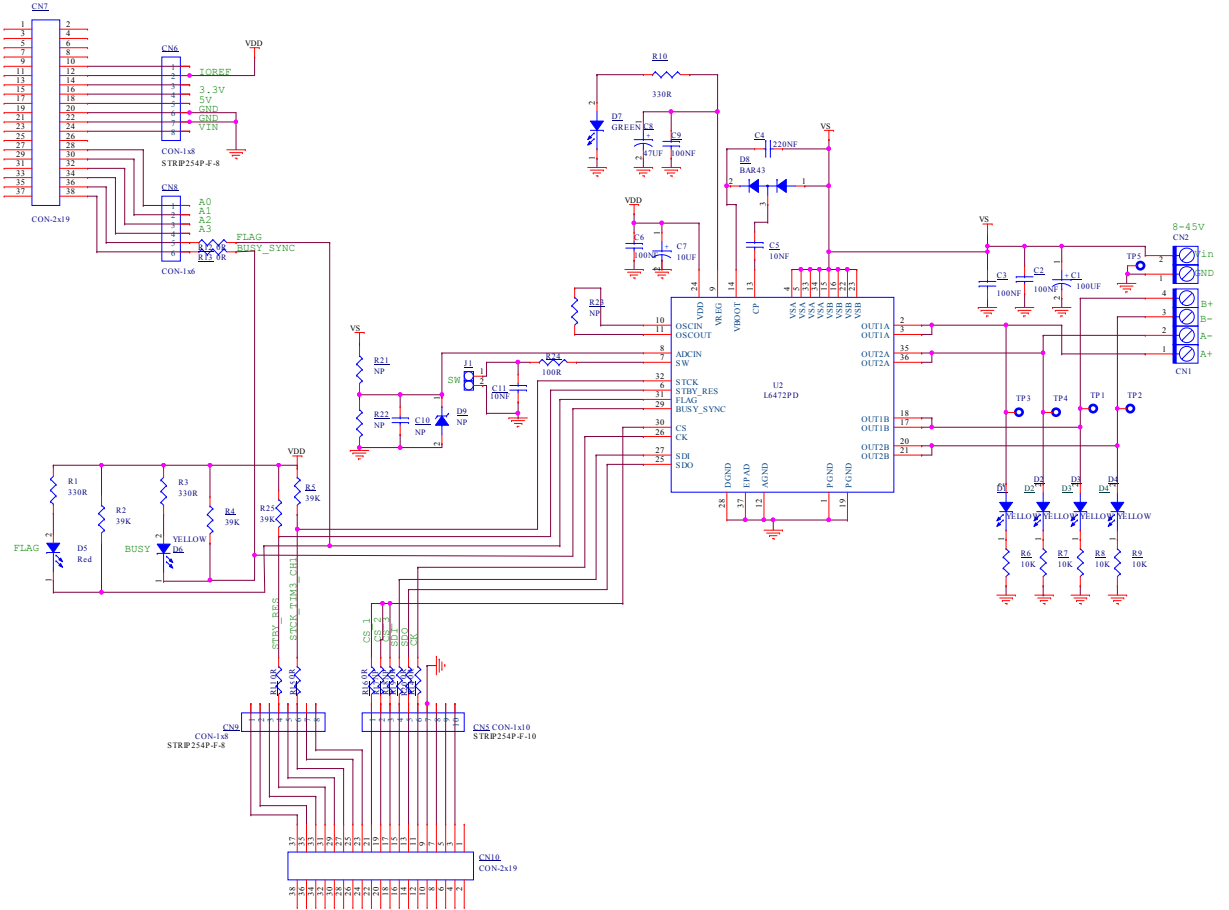
The EVL6472 is compatible with the Arduino® UNO R3 connector, and it supports the addition of other boards, which can be stacked to drive up to three stepper motors.

Product status link

[EVL6472](#)

1 EVL6472 schematic diagram

Figure 1. EVL6472 board schematic



Revision history

Table 1. Document revision history

Date	Version	Changes
18-Mar-2024	1	Initial release.

IMPORTANT NOTICE – READ CAREFULLY

STMicroelectronics NV and its subsidiaries (“ST”) reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST’s terms and conditions of sale in place at the time of order acknowledgment.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of purchasers’ products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. For additional information about ST trademarks, refer to www.st.com/trademarks. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2024 STMicroelectronics – All rights reserved