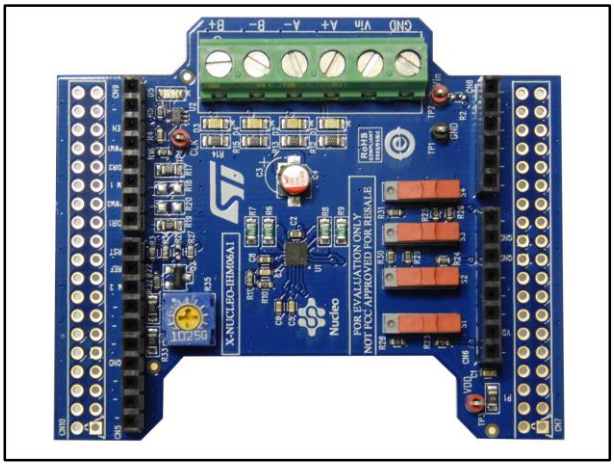
X-NUCLEO-IHM06A1

Low voltage stepper motor driver expansion board based on the STSPIN220 for STM32 Nucleo

Data brief



Features

- Low voltage range: 1.8 to 10 V
- Microstep adjustment up to the 256th step
- Phase current: up to 1.3 A_{RMS}
- Current control with adjustable off-time
- Full protection overcurrent and short circuit protection
- Thermal shutdown
- Compatible with Arduino UNO R3 connector
- Compatible with STM32 Nucleo boards
- RoHS compliant

Description

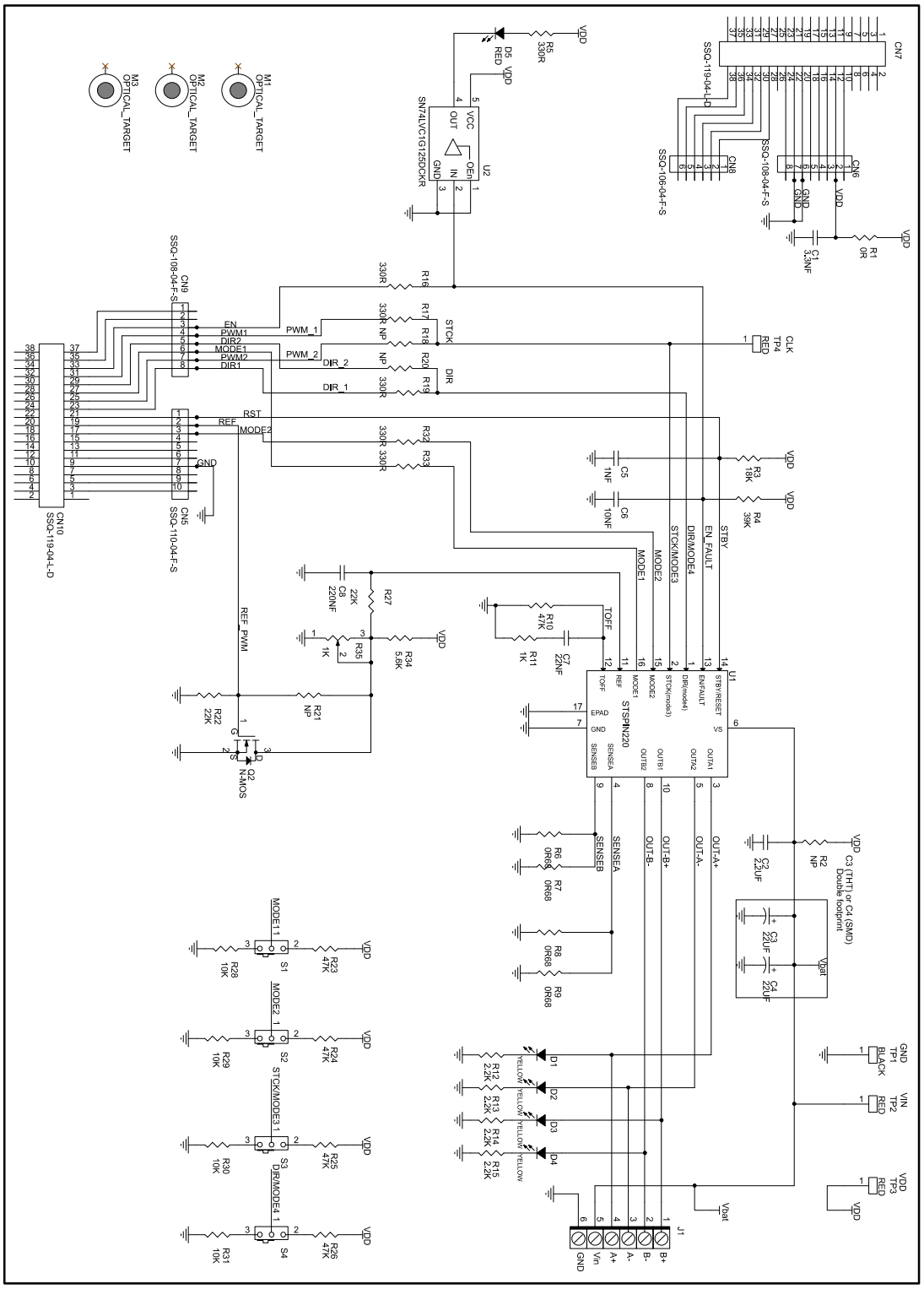
The X-NUCLEO-IHM06A1 is a low voltage stepper motor driver expansion board based on the STSPIN220 monolithic low voltage driver for low voltage stepper motors. It represents an affordable, easy-to-use solution for driving low voltage stepper motors in your STM32 Nucleo project, implementing portable motor driving applications such as thermal printers, robotics and toys.

It includes a stepper driver able to operate in low voltage (battery) scenarios, allowing zero consumption states. The device implements current control with fixed OFF time and a maximum 1/256 microstep resolution.

The X-NUCLEO-IHM06A1 is compatible with the Arduino UNO R3 connector and supports the addition of other STM32 expansion boards with a single STM32 Nucleo board. You can also mount the ST morpho connector.

Schematic diagram

Figure 1: X-NUCLEO-IHM06A1 schematic diagram



Revision history

Table 1: Document revision history

Date	Version	Changes
23-Jun-2016	1	Initial release.