X-NUCLEO-IHM11M1
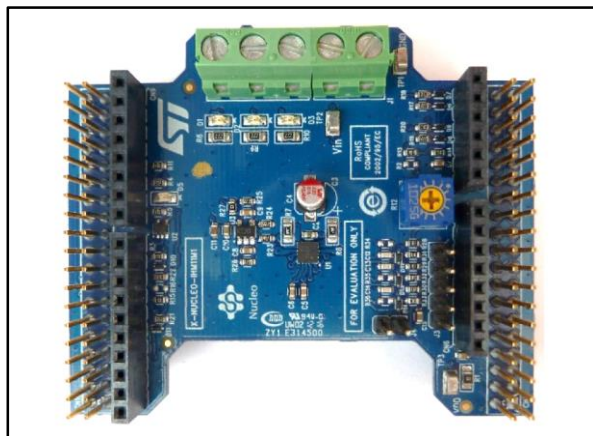
Low voltage three-phase brushless DC motor driver expansion board based on STSPIN230 for STM32 Nucleo

Description

The X-NUCLEO-IHM11M1 is a low voltage three-phase brushless DC motor driver expansion board based on the STSPIN230 for STM32 Nucleo.

It provides an affordable and easy-to-use solution for the implementation of portable motor driving applications such as thermal printers, robotics and toys.

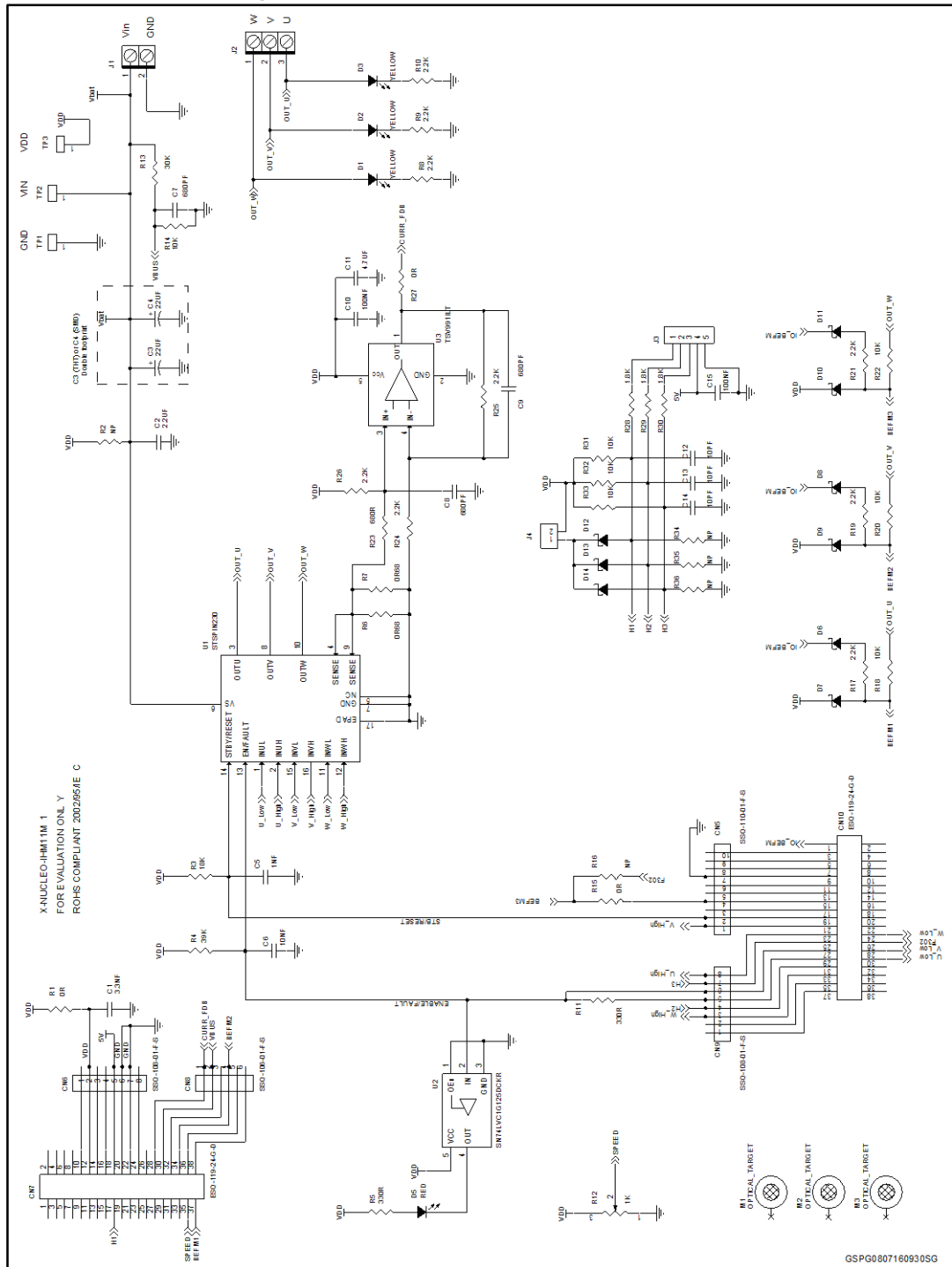The X-NUCLEO-IHM11M1 is compatible with the Arduino UNO R3 connector and most STM32 Nucleo boards.

The board is designed for six-step and FOC algorithms.

Features

- Low voltage range from 1.8 V to 10 V
- 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
- Equipped with ST morpho connectors
- Hall/Encoder motor sensor connector and circuit
- Potentiometer available for speed regulation
- RoHS compliant

For further information contact your local STMicroelectronics sales office

1 Schematic diagram

Figure 1: X-NUCLEO-IHM11M1 circuit schematic

2 Revision history

Table 1: Document revision history

Date	Version	Changes
11-Jul-2016	1	Initial release.