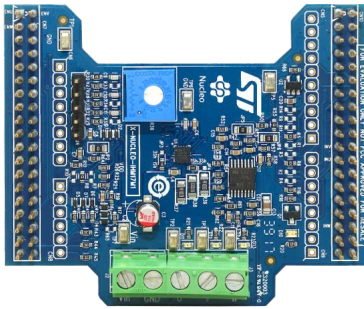


Low voltage three-phase brushless DC motor driver expansion board based on STSPIN233 for STM32 Nucleo



Features

- Low voltage range from 1.8 V to 10 V
- Current up to 1.3 A_{rms}
- Full overcurrent protection and short-circuit protection
- Thermal shutdown
- Compatible with STM32 Nucleo boards
- Equipped with ST morpho connectors
- Hall/Encoder motor sensor connector and circuit
- Potentiometer available for speed regulation
- RoHS compliant

Description

The **X-NUCLEO-IHM17M1** is a low voltage three-phase brushless DC motor driver expansion board based on the **STSPIN233** 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-IHM17M1** is compatible with the Arduino UNO R3 connector and most STM32 Nucleo boards.

The board is designed for six-step and FOC algorithms with single and three-shunt sensing topology.

Summary table

Low voltage three-phase brushless DC motor driver expansion board based on STSPIN233 for STM32 Nucleo	X-NUCLEO-IHM17M1
Low voltage three phase and three sense motor driver	STSPIN233
STM32 Nucleo development board	STM32 Nucleo

1 X-NUCLEO-IHM17M1 schematic diagram

Figure 1. X-NUCLEO-IHM17M1 circuit schematic (1 of 2)

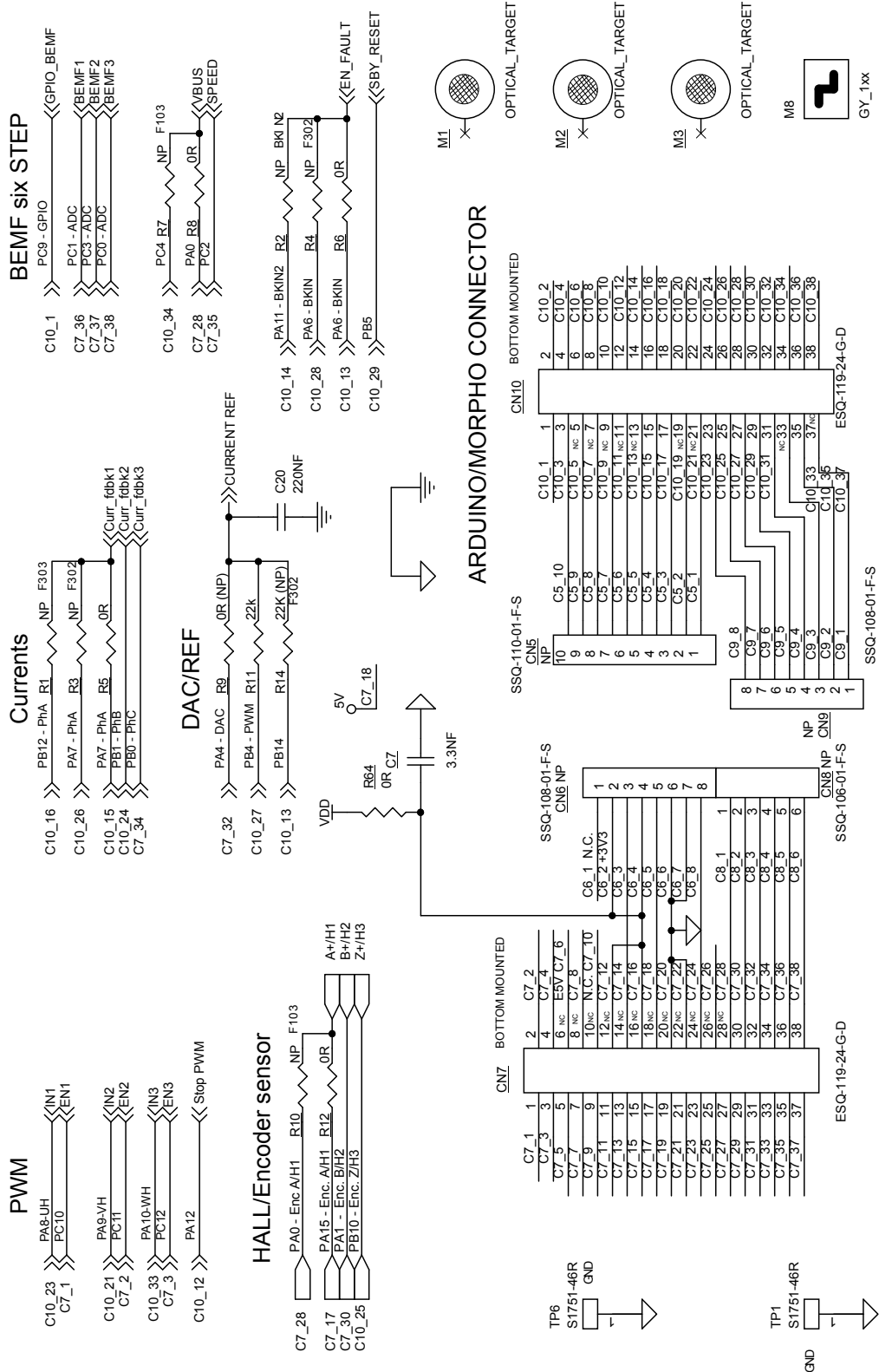
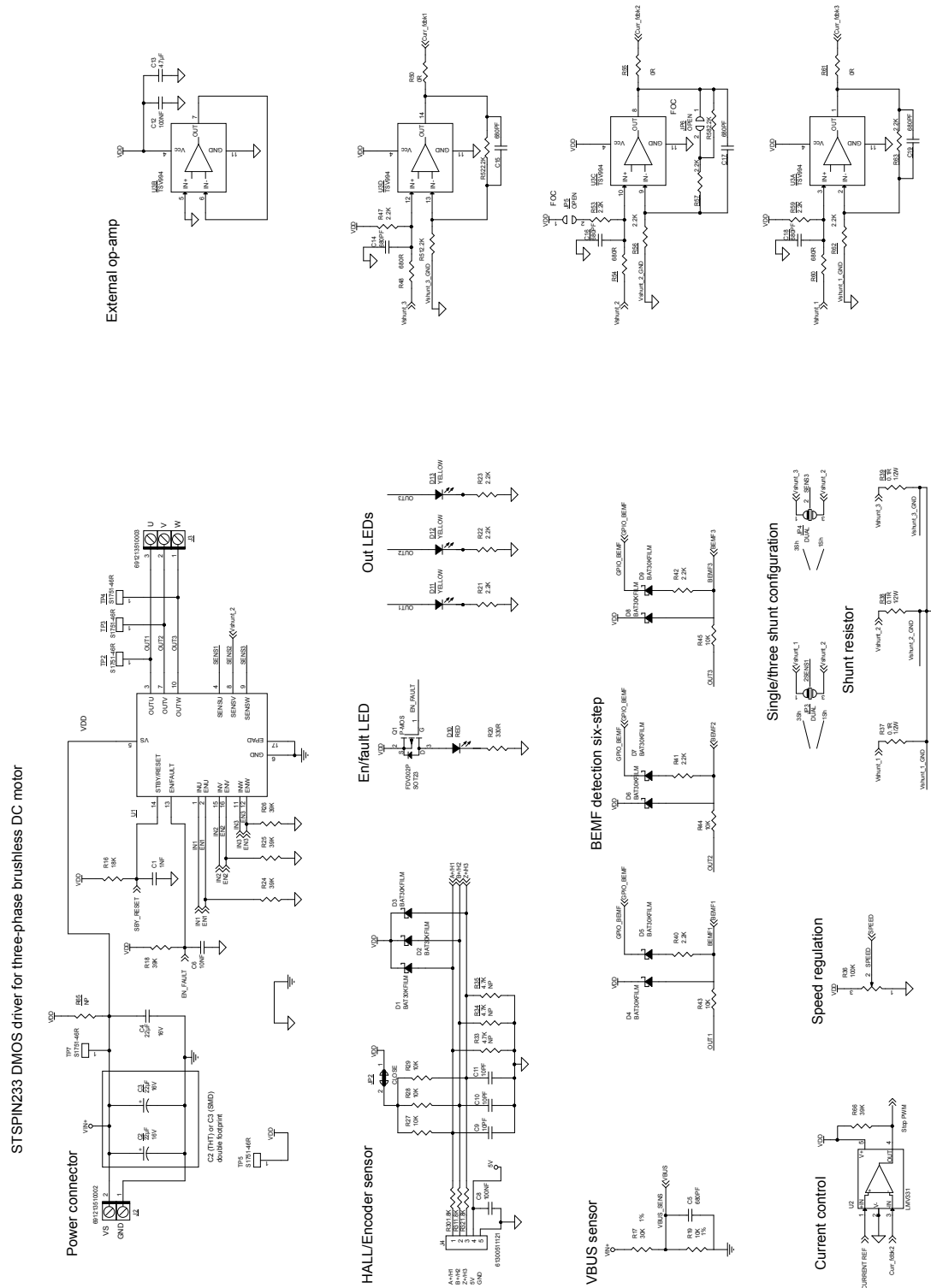


Figure 2. X-NUCLEO-IHM17M1 circuit schematic (2 of 2)



Revision history

Table 1. Document revision history

Date	Version	Changes
28-Feb-2017	1	Initial release.

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