

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 Arms
 - 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)

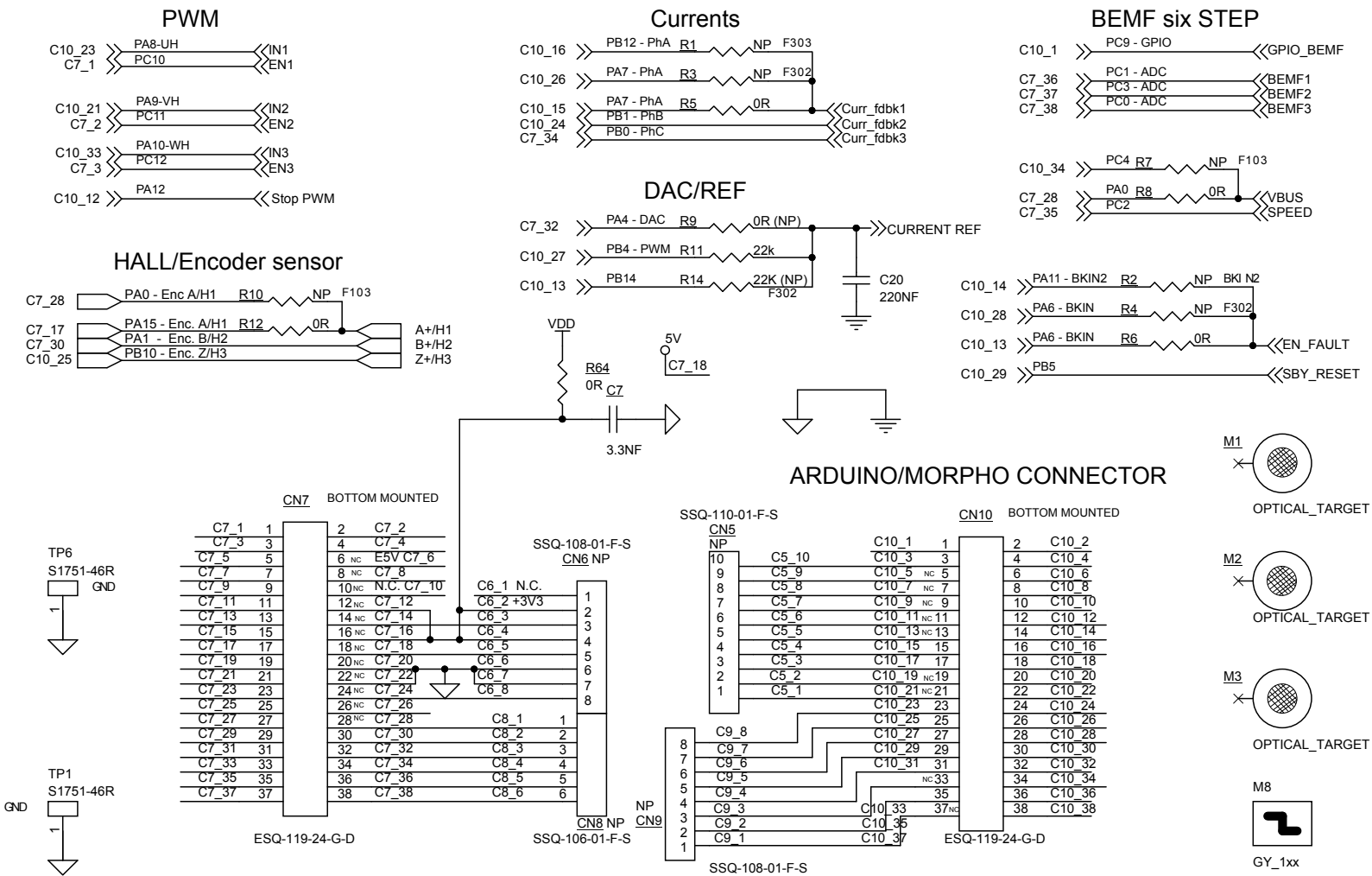
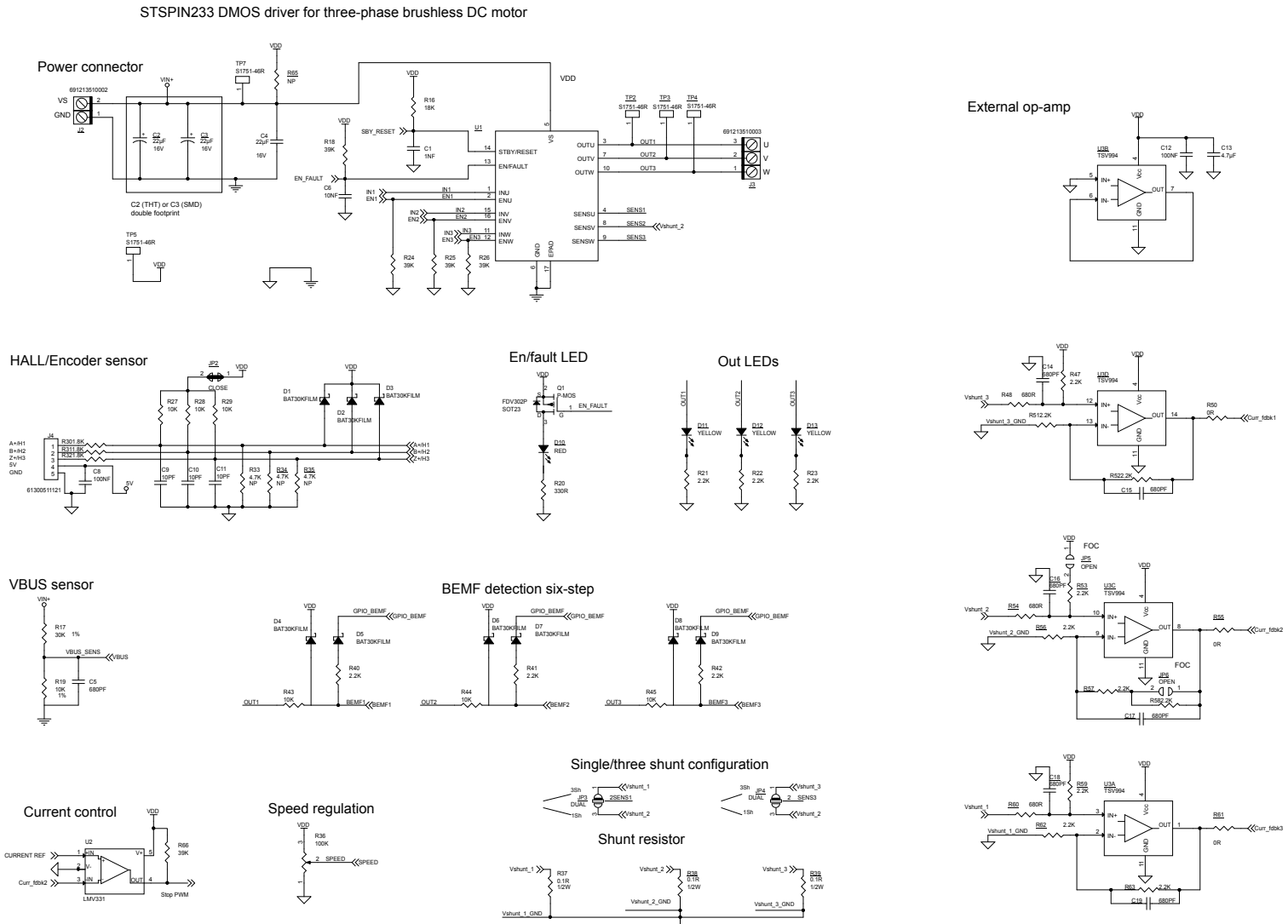


Figure 2. X-NUCLEO-IHM17M1 circuit schematic (2 of 2)





Revision history

Table 1. Document revision history

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



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