



## STEVAL-IPC003V1

Adapter board (daughter board for the STM3210C\_EVAL)  
for a thermal printer based on the L293DD

Data brief

### Features

- This application is designed for a connectivity line demonstration board.
- The thermal printer is interfaced through SPI3.
- The stepper motor driver (L293DD) is interfaced through GPIOs of the STM32 to rotate the printer head while printing.
- The touch screen on the TFT is used for touch detection for keypad data entry.
- The QVGA colour TFT available on the STM3210C-EVAL board is also interfaced through SPI3 to display the touch based keypad and user entered data.
- The complete package demonstration board and the daughter board need a single power supply input of 5 V. Change the jumper position on the EVAL board to the daughter board power supply and connect a 5 V DC adapter to the connector provided on the daughter board.
- An ADC analog watchdog is used to monitor the temperature of the thermal head.
- An RTC (real time clock) provides the date and time of printing.
- RoHS compliant.

### Description

The STEVAL-IPC003V1 demonstration board is a thermal printer adapter board for the STM3210C\_EVAL and offers a solution for parking ticket vending machines. This daughter board is interfaced with a connectivity line demonstration board, using the touch based TFT as the user interface keypad. The objective of this demonstration board is to print and generate parking tickets as well as printing text messages received over the ethernet.

It is an application which can be re-used in POS based applications.



Paper feed is done by the stepper-motor for which a driver is required. The driver, used for the stepper motor (L293DD), has a push-pull four channel driver with diodes.

# 1 Schematic circuits

Figure 1. Eval board connector section

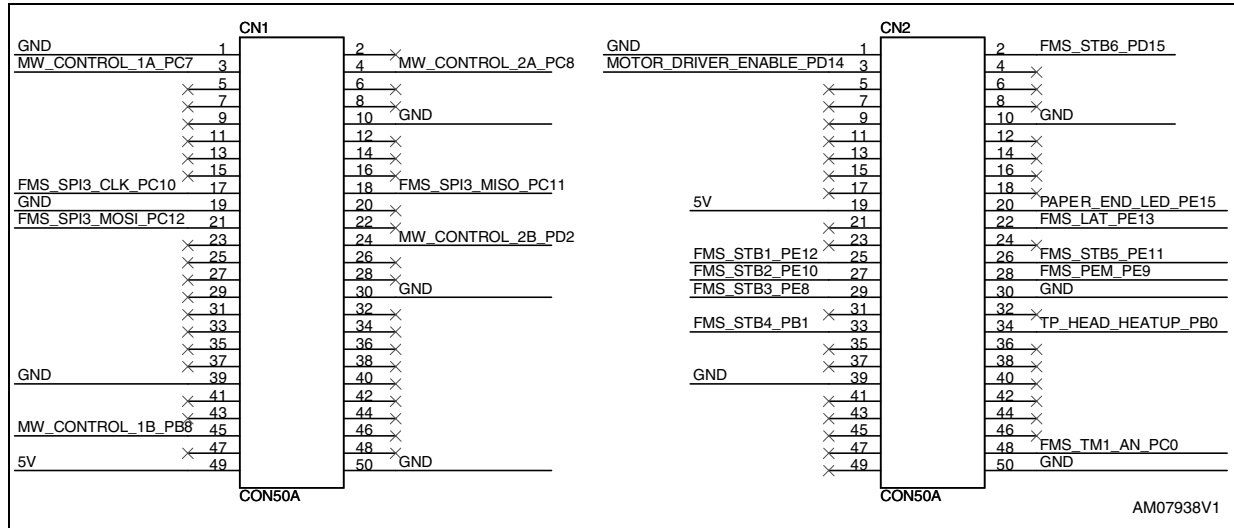


Figure 2. Printer connector

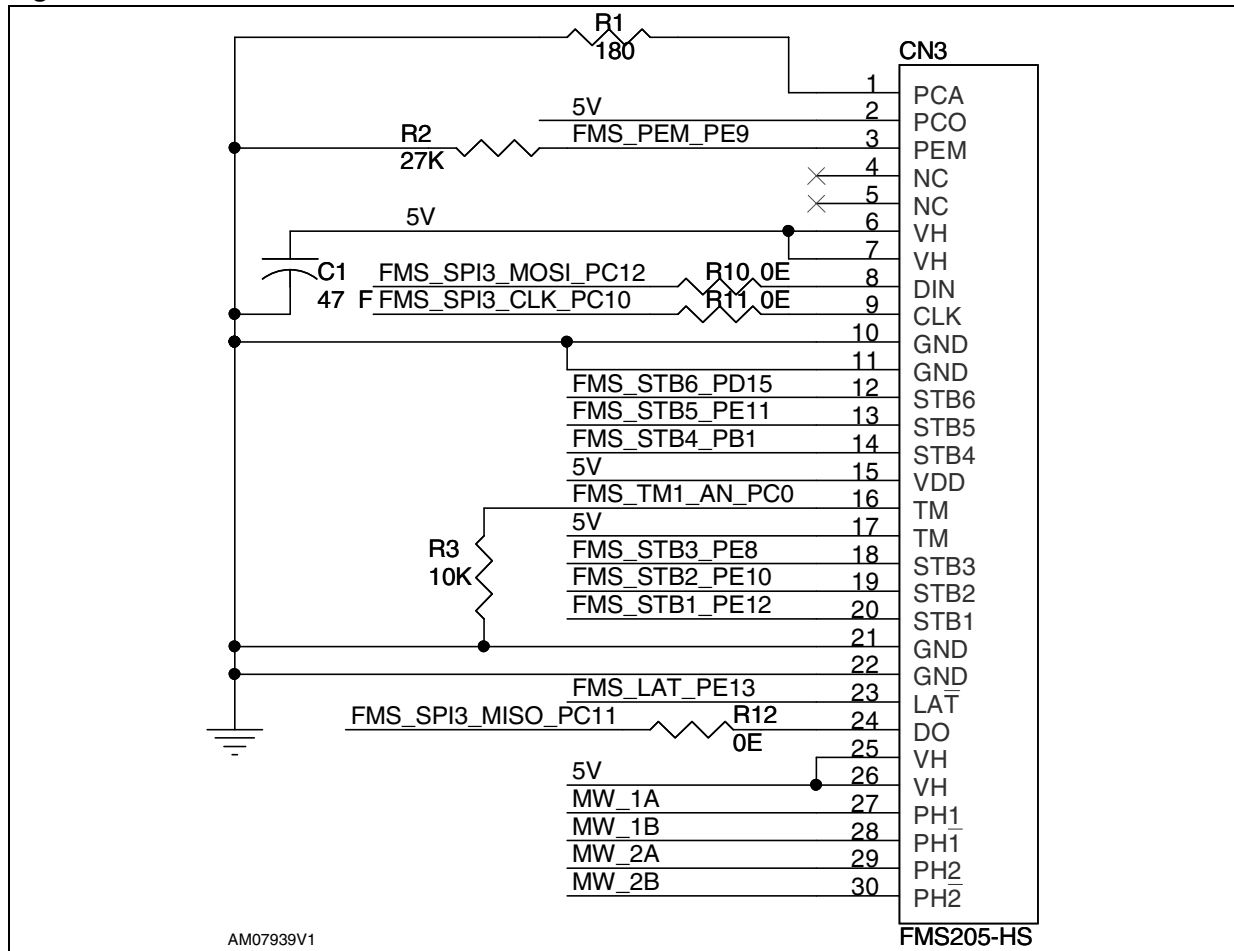


Figure 3. Motor driver

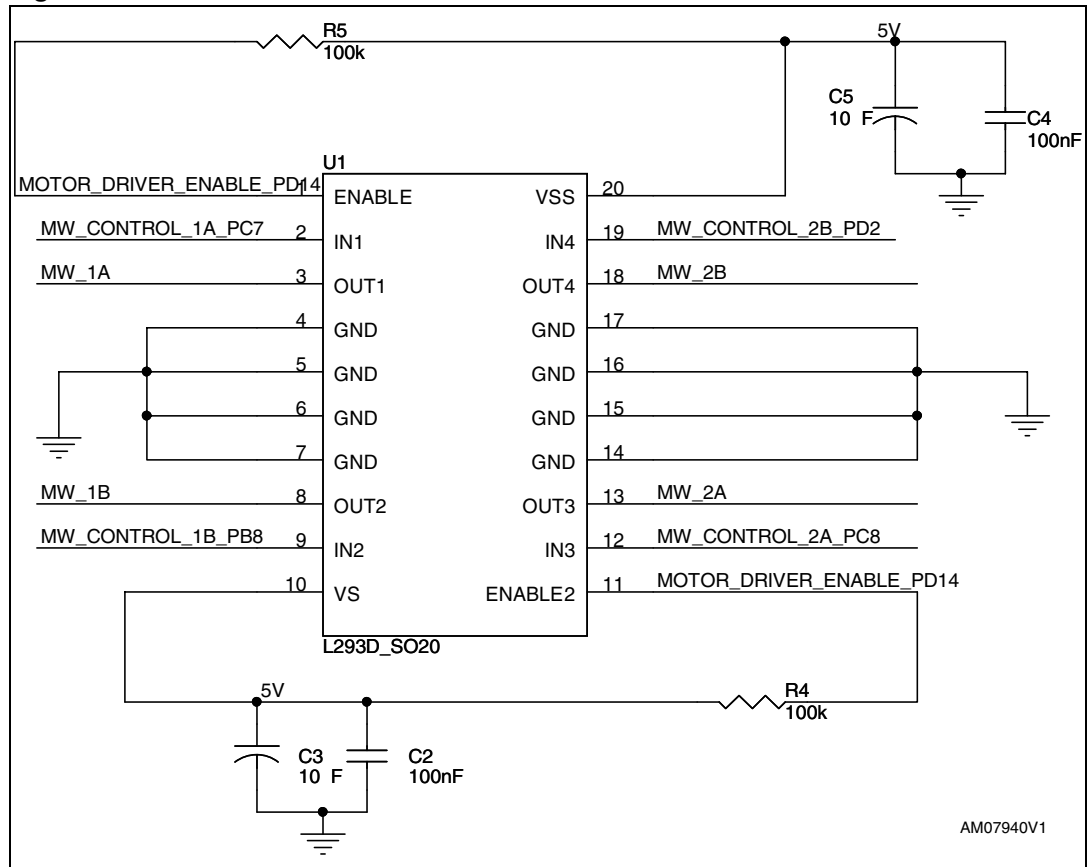
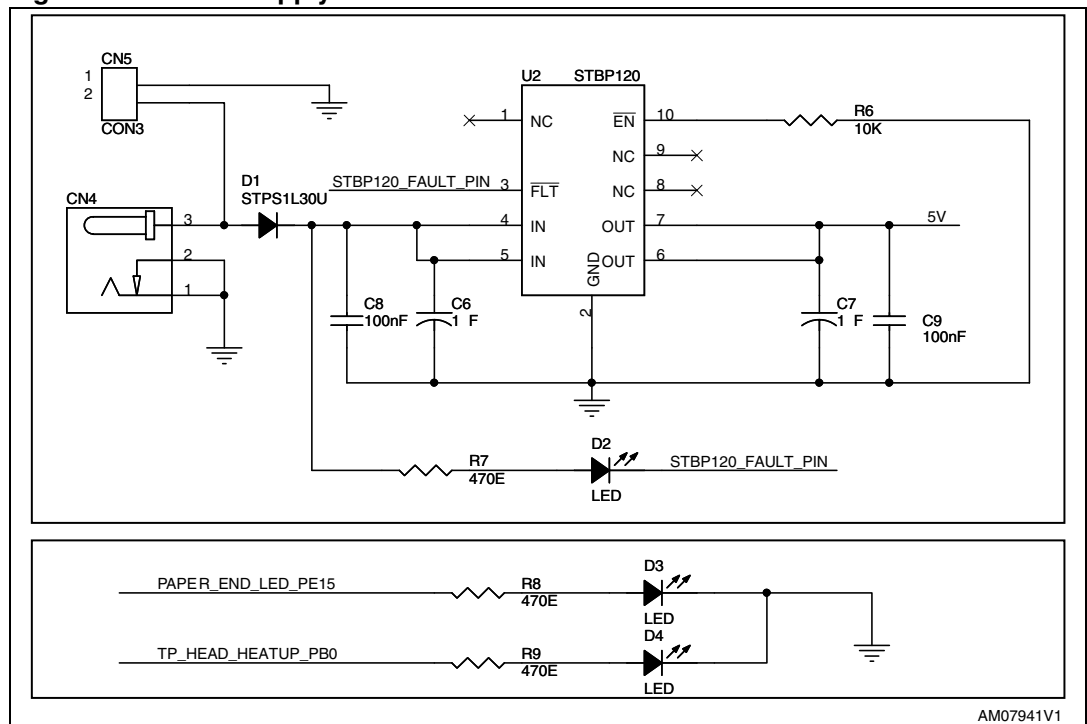


Figure 4. Power supply



## 2 Revision history

**Table 1. Document revision history**

Date	Revision	Changes
18-Aug-2010	1	Initial release.

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