

Excellent Integrated System Limited

Stocking Distributor

Click to view price, real time Inventory, Delivery & Lifecycle Information:

[STMicroelectronics](#)
[STEVAL-IPC003V1](#)

For any questions, you can email us directly:

sales@integrated-circuit.com



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.



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.

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.

1 Schematic circuits

Figure 1. Eval board connector section

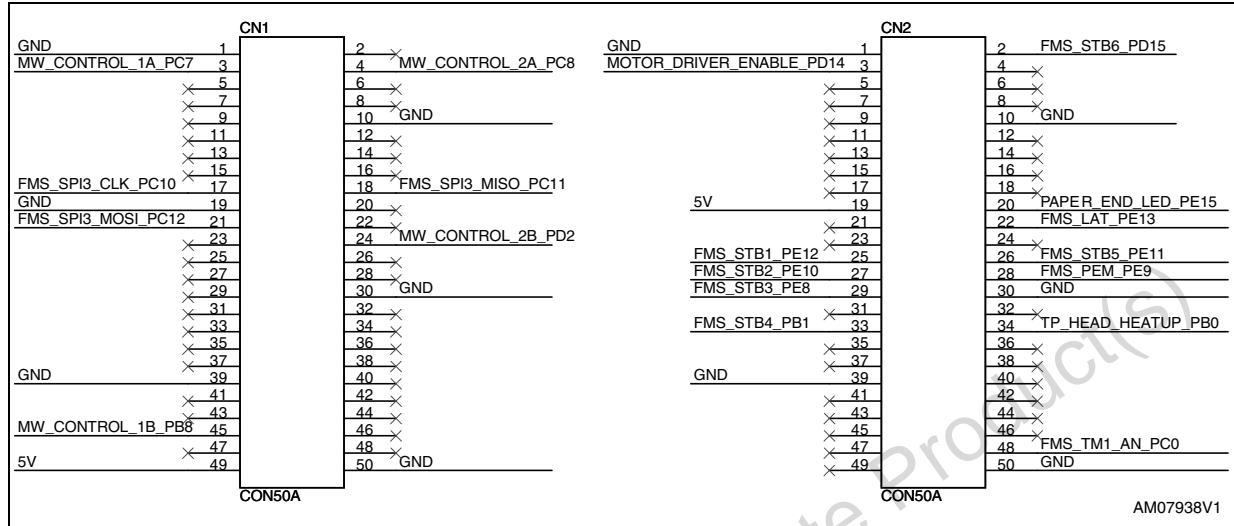
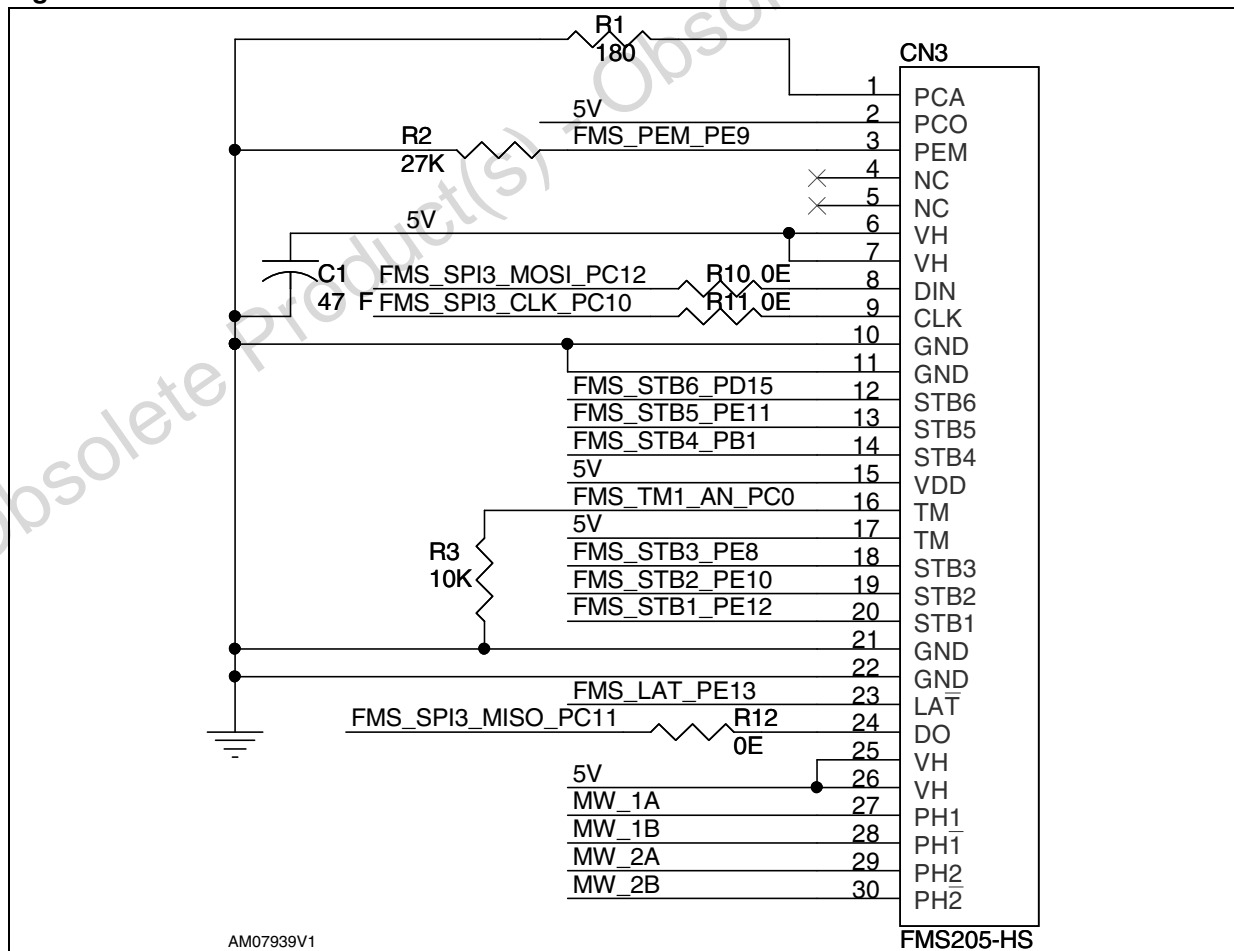


Figure 2. Printer connector



STEVAL-IPC003V1

Schematic circuits

Figure 3. Motor driver

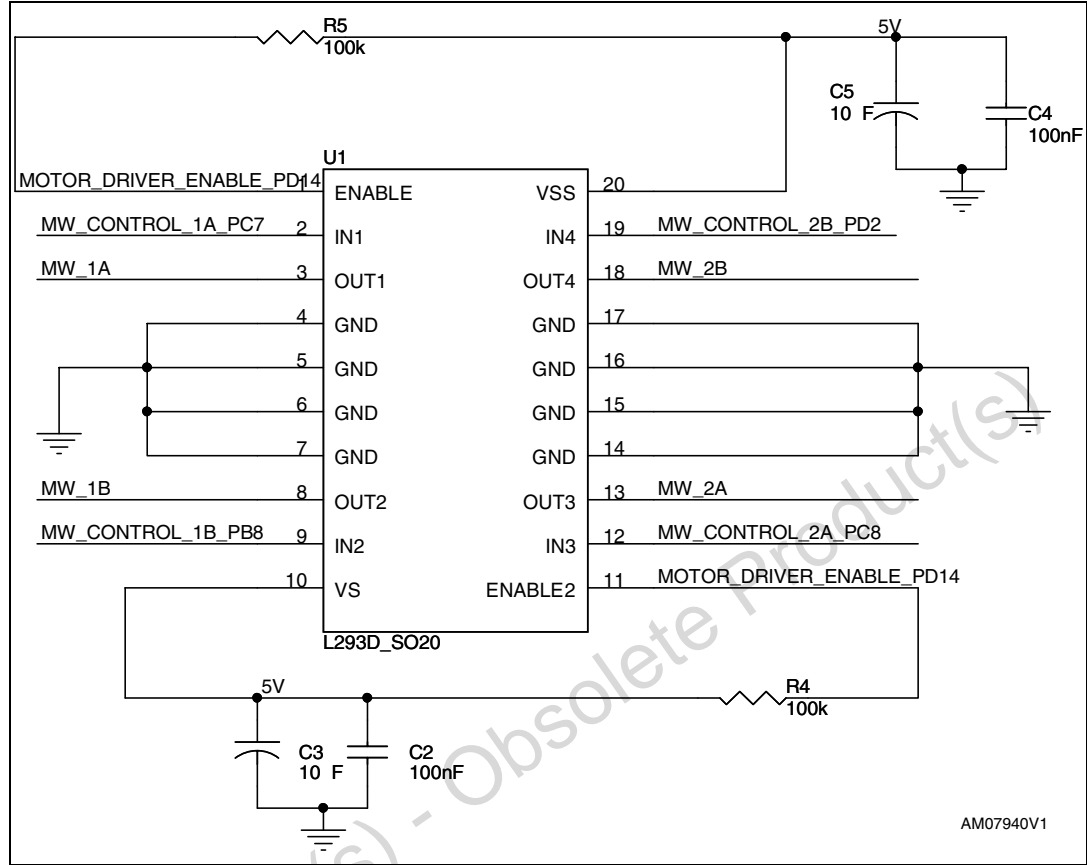
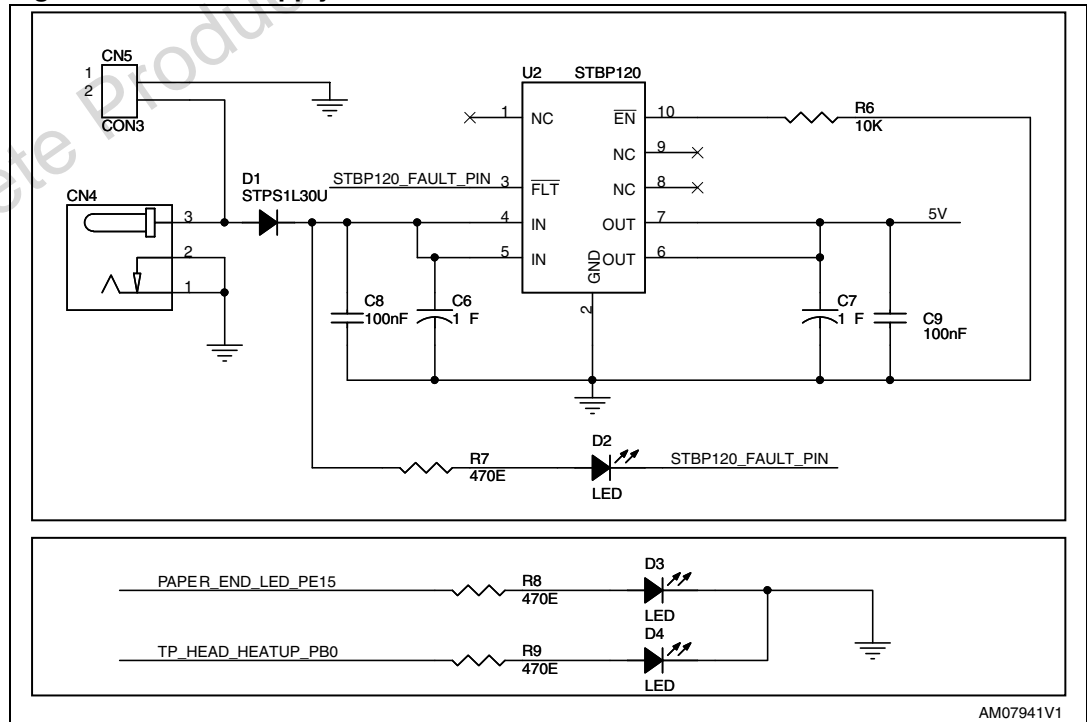


Figure 4. Power supply



2 Revision history

Table 1. Document revision history

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

Obsolete Product(s) - Obsolete Product(s)

STEVAL-IPC003V1

Please Read Carefully:

Information in this document is provided solely in connection with ST products. STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, modifications or improvements, to this document, and the products and services described herein at any time, without notice.

All ST products are sold pursuant to ST's terms and conditions of sale.

Purchasers are solely responsible for the choice, selection and use of the ST products and services described herein, and ST assumes no liability whatsoever relating to the choice, selection or use of the ST products and services described herein.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted under this document. If any part of this document refers to any third party products or services it shall not be deemed a license grant by ST for the use of such third party products or services, or any intellectual property contained therein or considered as a warranty covering the use in any manner whatsoever of such third party products or services or any intellectual property contained therein.

UNLESS OTHERWISE SET FORTH IN ST'S TERMS AND CONDITIONS OF SALE ST DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY WITH RESPECT TO THE USE AND/OR SALE OF ST PRODUCTS INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION), OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

UNLESS EXPRESSLY APPROVED IN WRITING BY AN AUTHORIZED ST REPRESENTATIVE, ST PRODUCTS ARE NOT RECOMMENDED, AUTHORIZED OR WARRANTED FOR USE IN MILITARY, AIR CRAFT, SPACE, LIFE SAVING, OR LIFE SUSTAINING APPLICATIONS, NOR IN PRODUCTS OR SYSTEMS WHERE FAILURE OR MALFUNCTION MAY RESULT IN PERSONAL INJURY, DEATH, OR SEVERE PROPERTY OR ENVIRONMENTAL DAMAGE. ST PRODUCTS WHICH ARE NOT SPECIFIED AS "AUTOMOTIVE GRADE" MAY ONLY BE USED IN AUTOMOTIVE APPLICATIONS AT USER'S OWN RISK.

Resale of ST products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by ST for the ST product or service described herein and shall not create or extend in any manner whatsoever, any liability of ST.

ST and the ST logo are trademarks or registered trademarks of ST in various countries.

Information in this document supersedes and replaces all information previously supplied.

The ST logo is a registered trademark of STMicroelectronics. All other names are the property of their respective owners.

© 2010 STMicroelectronics - All rights reserved

STMicroelectronics group of companies

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan - Malaysia - Malta - Morocco - Philippines - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America

www.st.com