



STEVAL-CCM001V2

Graphic panel demonstration board based on the STM32

Data brief

Features

- Microcontroller: STM32-HD (64 KB RAM)
- 320 x 240 resolution parallel TFT screen using FSMC peripheral for faster display
- Bluetooth module footprint
- Touchscreen for user interface
- ZigBee® for picture transfer
- STM32-based RTC available to display date/time and calendar
- MEMS device to rotate the image based on TFT position
- MicroSD card interfaced through SDIO
- USB Mini-B connector
- PC connectivity
- User-programmable time interval for photo display
- Senses temperature and displays data on TFT
- On-board power supply for DPF
- Rechargeable battery circuit available
- On-board JTAG connector for firmware upgrade and modifications
- Additional ESD protection device for USB and SD card
- RoHS compliant

Description

The STM32-based STEVAL-CCM001V2 graphic panel demonstration board displays images one-by-one in a slideshow fashion. The heart of this board is the STM32 microcontroller, which is capable of reading a memory card containing photographs, and display them on a TFT screen. The memory used to store the images is a microSD card. A 3-axis MEMS accelerometer is used for picture orientation.

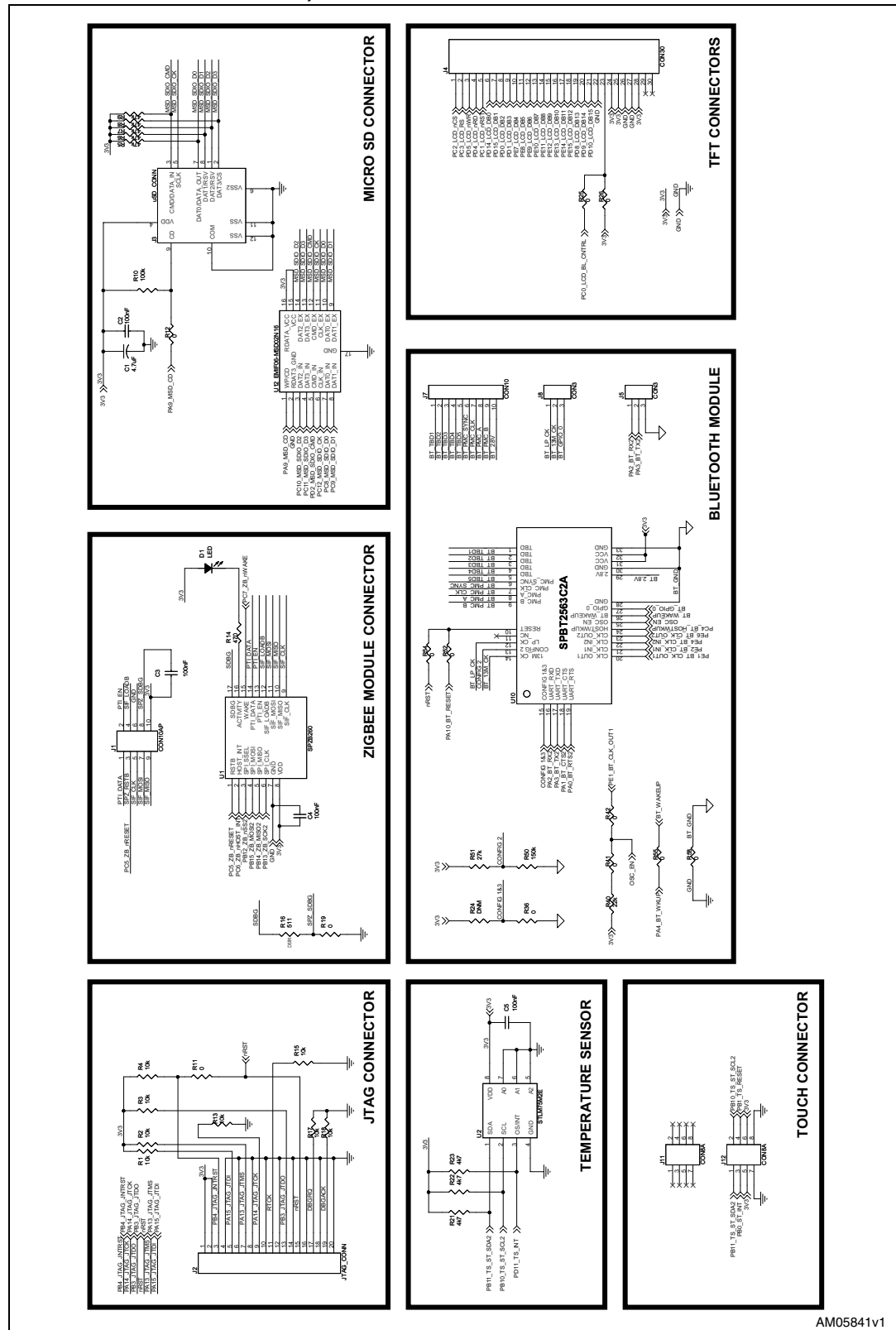
With the growing popularity of digital cameras and cellular phones with high-pixel photo capability, it



is becoming more common for people to store digital photos in storage media rather than producing prints. Digital photo frames are an ideal solution to preview digital images. Bundling image display solutions with the STM32 shows the capability of this microcontroller in the world of multimedia. Additional features of the board include display of room temperature, date and time, a touchscreen-based keypad as user interface, USB mass storage, ZigBee® and a rechargeable battery system.

The application can be used either as a stand-alone solution, or combined with other applications such as POS, card readers, security panels, USB speakers or high-end remote controls.

Figure 2. Connectors (TFT, microSD, JTAG, temp sensor, ZigBee, bluetooth, touch board connector)

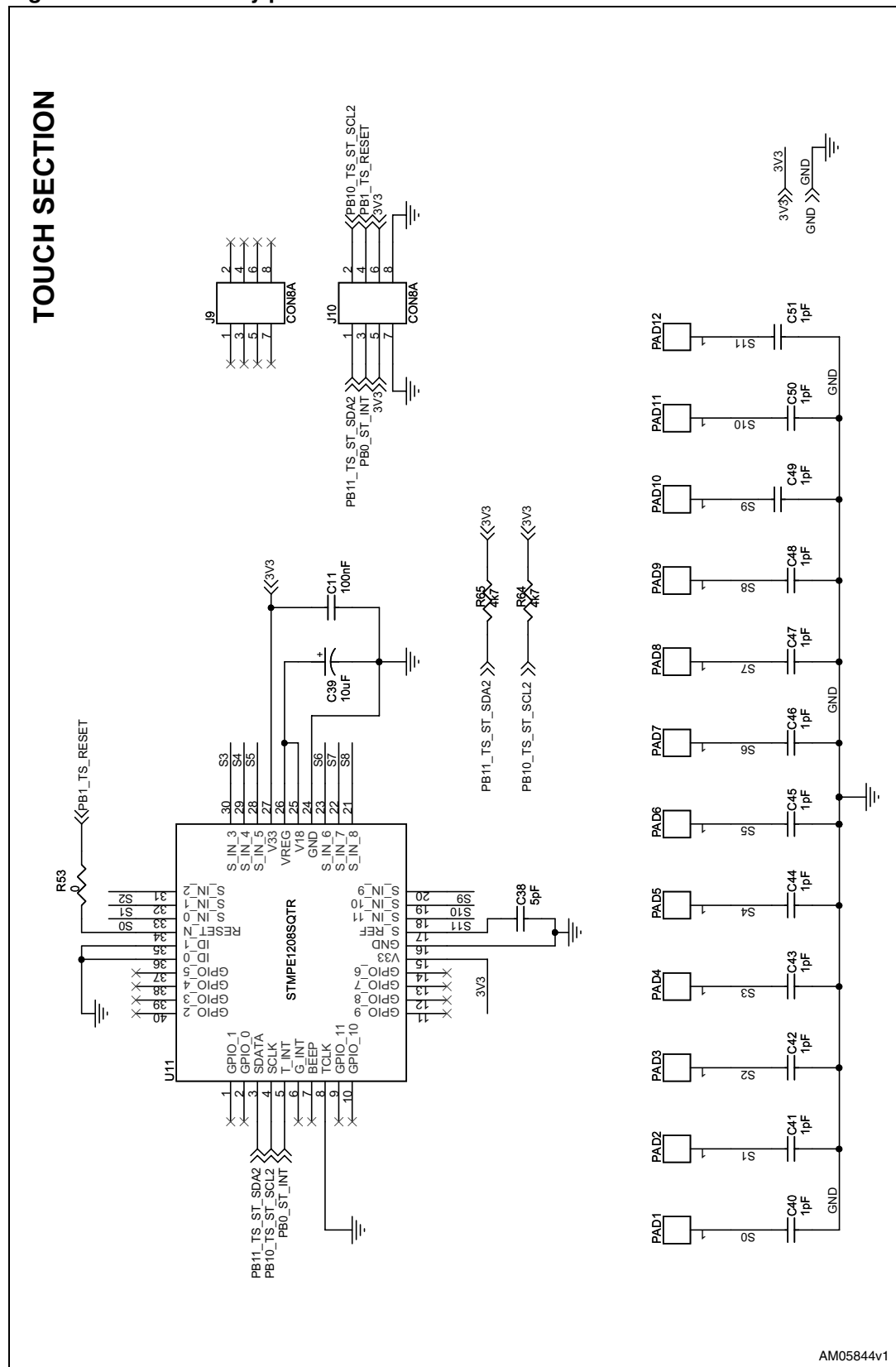


AM05841v1

STW4102 BATTERY CHARGER

POWER SECTION

Figure 4. S-Touch key pad section



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
03-Mar-2010	1	Initial release.

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