



STEVAL-CCM001V1

Digital photo frame demonstration board based on the STM32F103RB microcontroller

Data Brief

Features

- 320 x 240 resolution TFT (2.4" diagonally) interfaced through SPI2
- Micro SD card interfaced through SPI1
- Mini USB type-B connector
- On-board power supply for DPF
- LED power indicator
- Rechargeable battery circuit available
- On-board JTAG connector for firmware upgrade and changes
- Additional ESD protection device on USB
- USB interface available for use of mass-storage devices
- Supports both 2-axis and 3-axis MEMS, used for iPhone-like picture orientation
- Push-button switches for reset and user switching
- Joystick control



Description

The STEVAL-CCM001V1 demonstration board is a standalone digital photo frame application designed using the STM32F103RB Cortex M3 microcontroller.

The digital photo frame is used to display digital images in slideshow style. Unlike the static display of traditional photo frames, the images in the digital photo frame change automatically at regular intervals which are set by the user.

The application is capable of managing JPEG decompression with the 20 KB of RAM in the STM32F103RB microprocessor. The FAT16 / FAT32 system library is used for reading JPEG images from the Micro SD card.

The STEVAL-CCM001V1 can be powered by an external battery, as well as by a USB connector.

1 Block diagram and schematics

Figure 1. STEVAL-CCM001V1 system block diagram

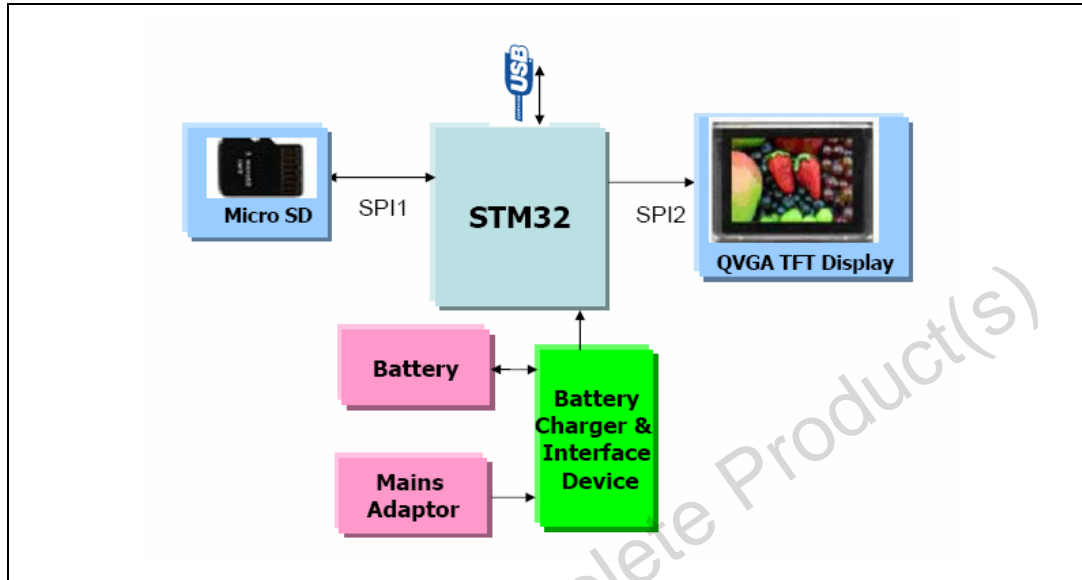
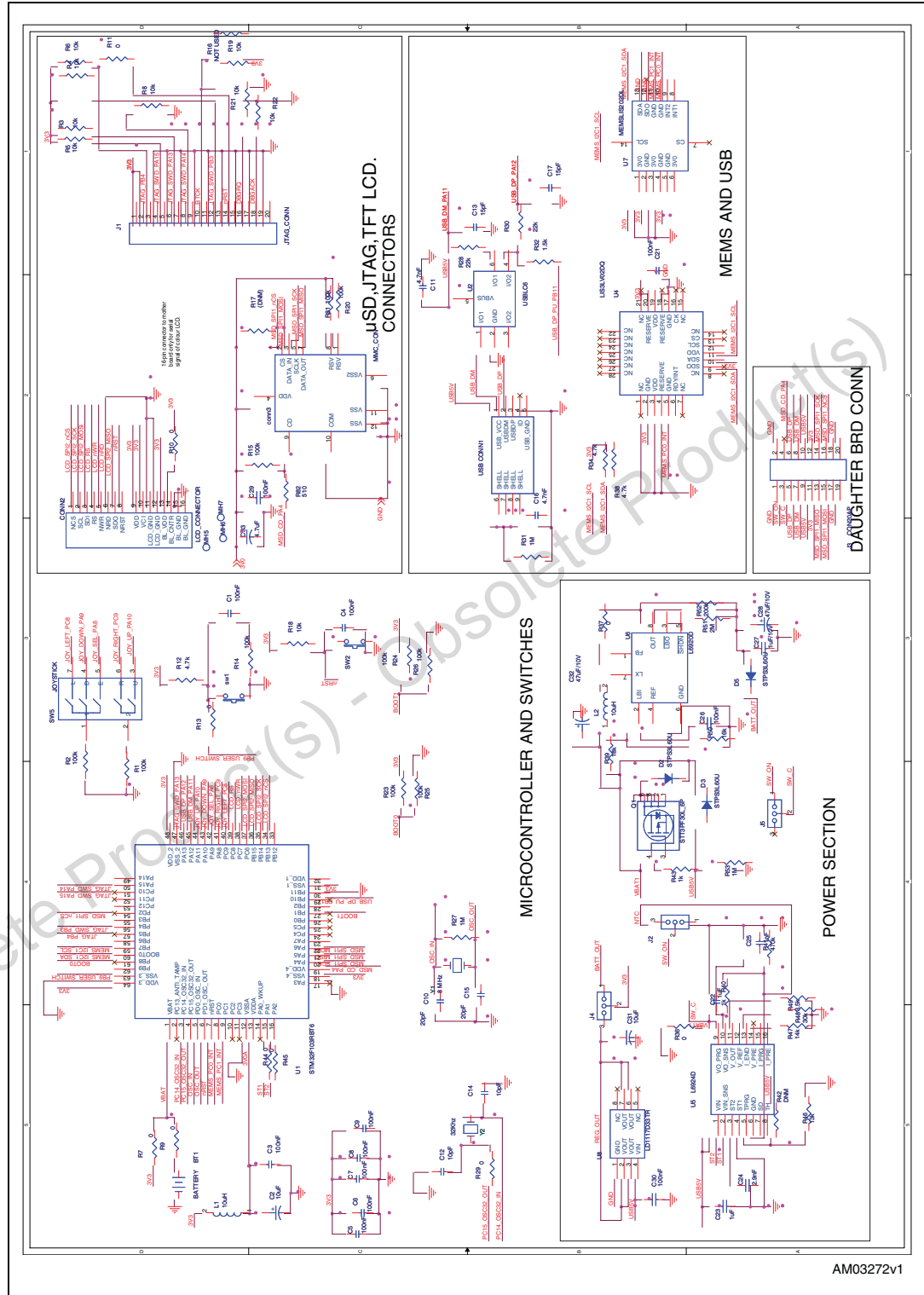


Figure 2. Internal schematic diagrams



AM03272v1

2 Revision history

Table 1. Document revision history

Date	Revision	Changes
21-Nov-2008	1	Initial release.

Obsolete Product(s) - Obsolete Product(s)

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.

© 2008 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 - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America

www.st.com