



STEVAL-CBP006V1

UniPower front panel and standby power management controller for STB, TV sets and other consumer devices

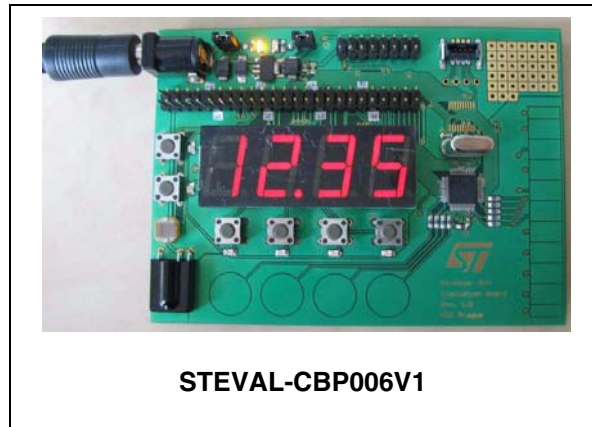
Data brief

Features

- Includes the STM8S105xx MCU with 32 Kbytes of Flash memory packaged in an LQFP48
- Alternative footprint for MCU in VFQFN32 package (within LQFP48 footprint)
- PMOS controlled switch up to 5 A
- 6 mechanical switches, 4 touch-sensing buttons, 1 slider
- 4-digit, 7-segment display and 6 controllable LEDs
- Photo-resistor for automatic display dimming
- 36 kHz-carrier infrared receiver for board remote control
- All MCU I/Os available on a header connector for implementation of additional functions
- SWIM interface for firmware programming and debugging
- Dedicated connector for interfacing with host, with signals including I²C, interrupt and reset outputs, and wakeup
- RoHS compliant

Description

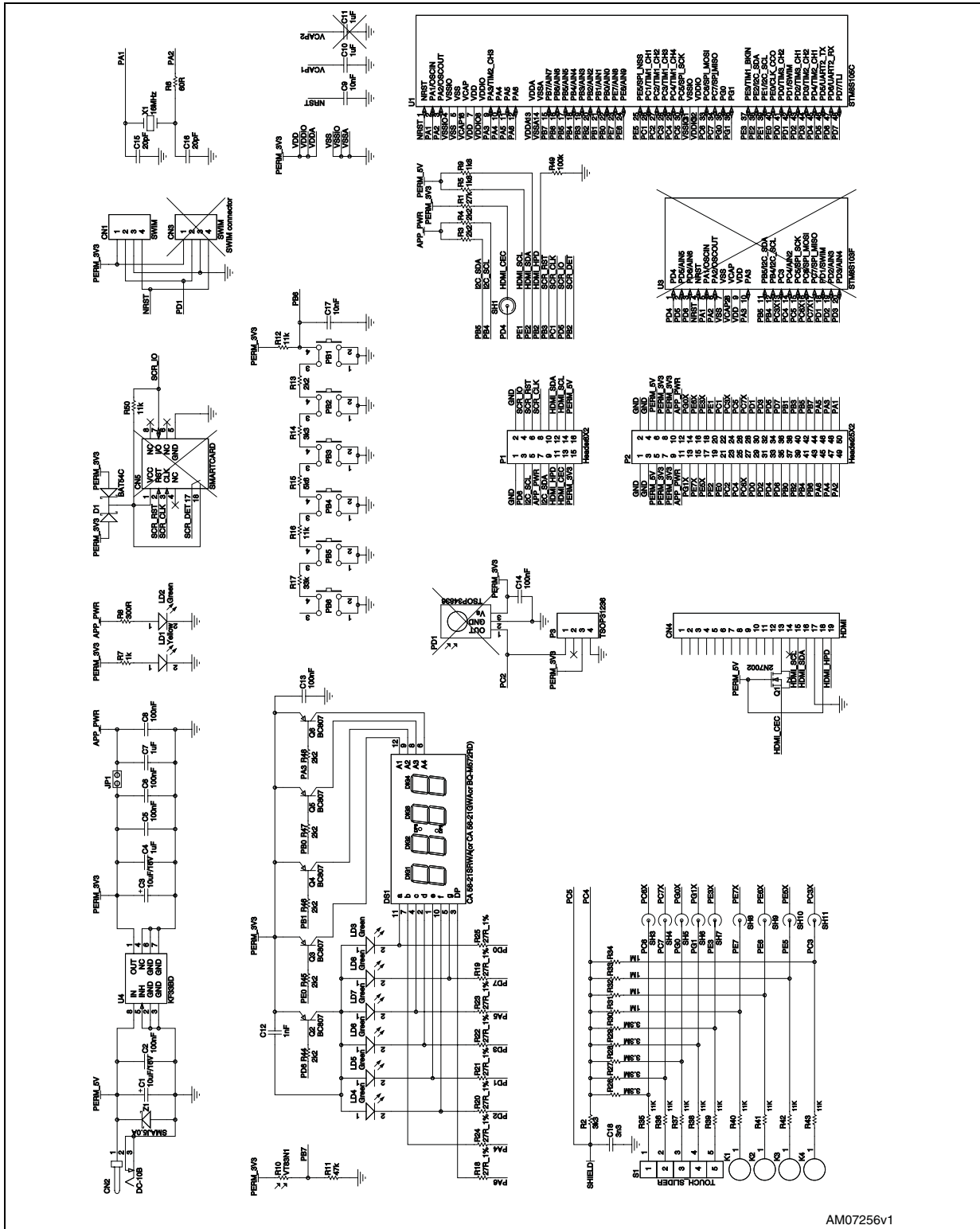
The STEVAL-CBP006V1 UniPower demonstration board is designed to provide a ready-to-use platform for power supply management and user-interface control developed around the STM8S MCU. The board can manage various wakeup sources, and perform power supply switching of the rest of the application during standby. The board also features an ST capacitive touch-sensing software library capable of turning any 8-bit STM8 microcontroller into a capacitive touch-sensing controller.



The UniPower demonstration board is preprogrammed with demonstration firmware to manage most of the system's hardware resources, such as digital and analog I/Os, LEDs and mechanical buttons. Touch-sensing functions can thus be easily combined with traditional MCU capabilities by selecting appropriate modules from the UniPower MCU firmware library. The UniPower demonstration board allows designers who are familiar with the use of standard microcontrollers to perform extensive application standby power management and create higher-end look-and-feel human interfaces by replacing conventional electromechanical switches with capacitive touchkeys. The application cost can be reduced by choosing a smaller MCU from the STM8S portfolio. The board is delivered with a SWIM interface, allowing adaptation of the firmware to application requirements. This simplifies the concept of the UniPower MCU firmware library, and makes the evaluation of the key features for end-applications easy. Maturity, robustness, flexibility and performance make this solution simple to implement and quick to market. It can be integrated into various types of consumer application, such as set-top boxes, digital TVs and home appliances. For further details about the touch-sensing software library, please refer to the STM8 touch-sensing firmware documentation.

1 Schematic diagrams

Figure 1. Circuit schematics



AM07256v1



2 Revision history

Table 1. Document revision history

| Date | Revision | Changes |
|-------------|----------|------------------|
| 16-Jun-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