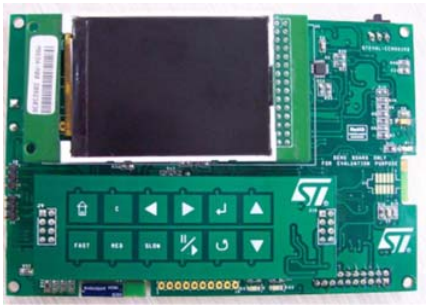
STEVAL-CCM001V2

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



STEVAL-CCM001V2

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.

1 Schematic diagrams

Figure 1. Microcontroller section

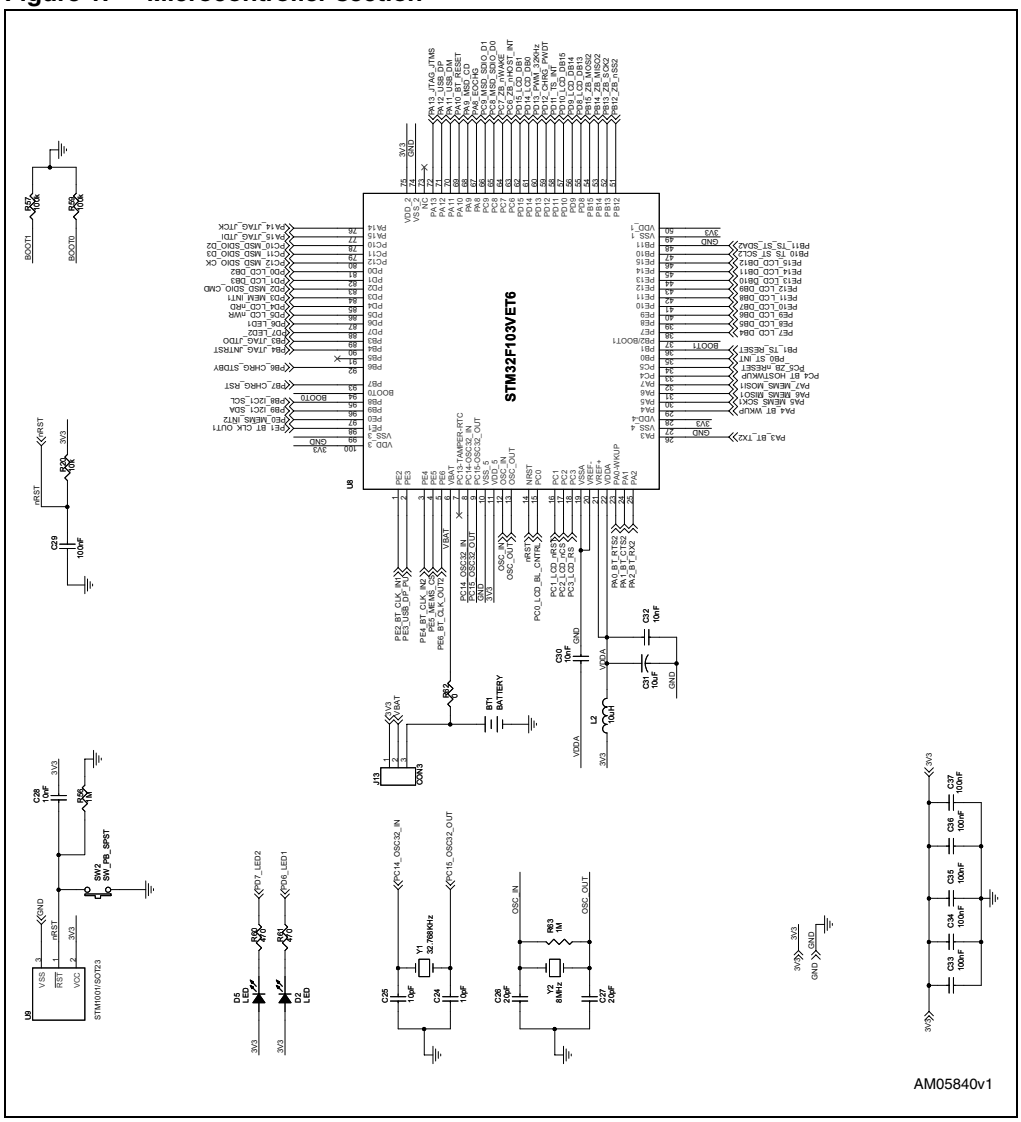


Figure 2. Connectors (TFT, microSD, JTAG, temp sensor, ZigBee, bluetooth, touch board connector)

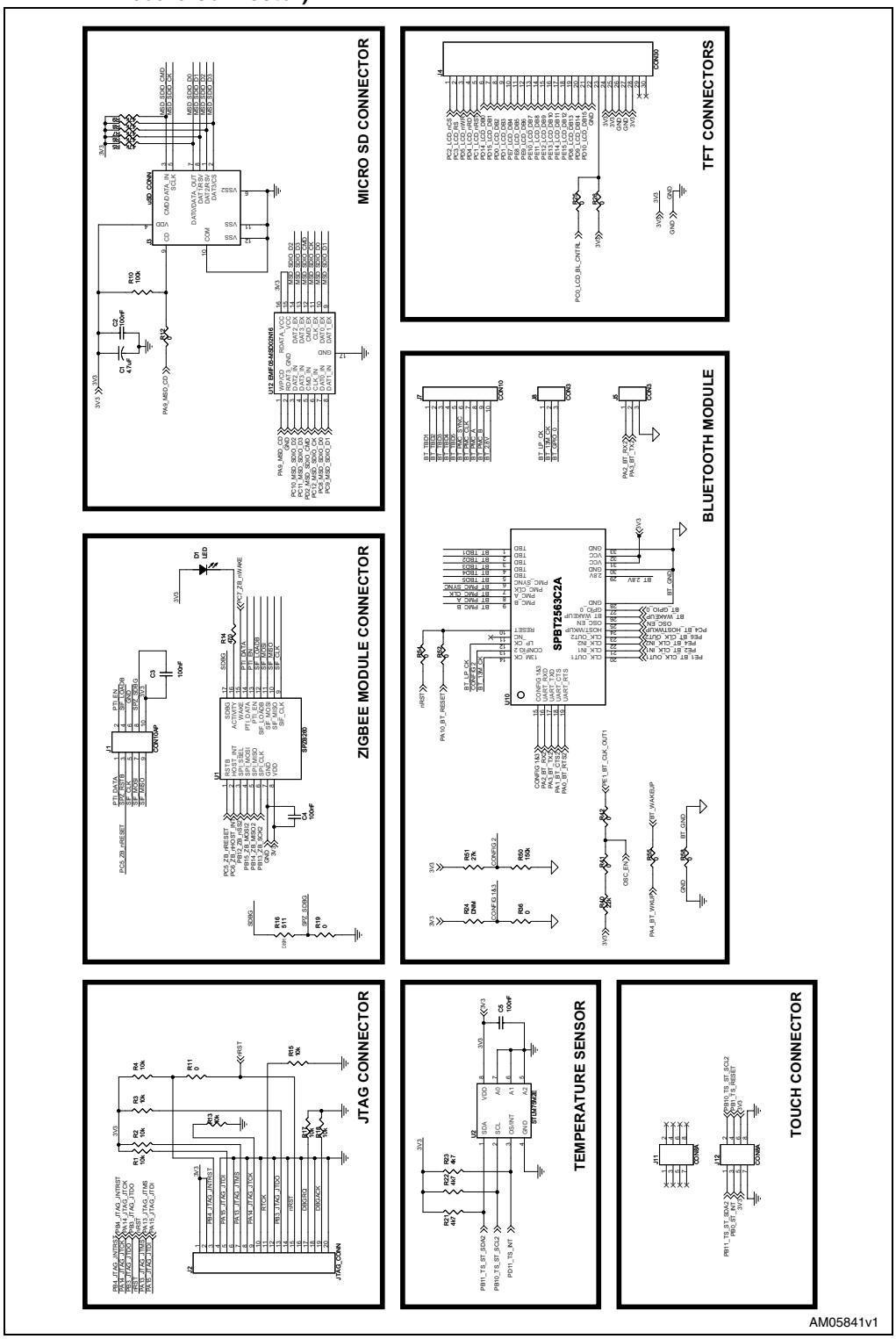


Figure 3. Power, MEMS, and USB

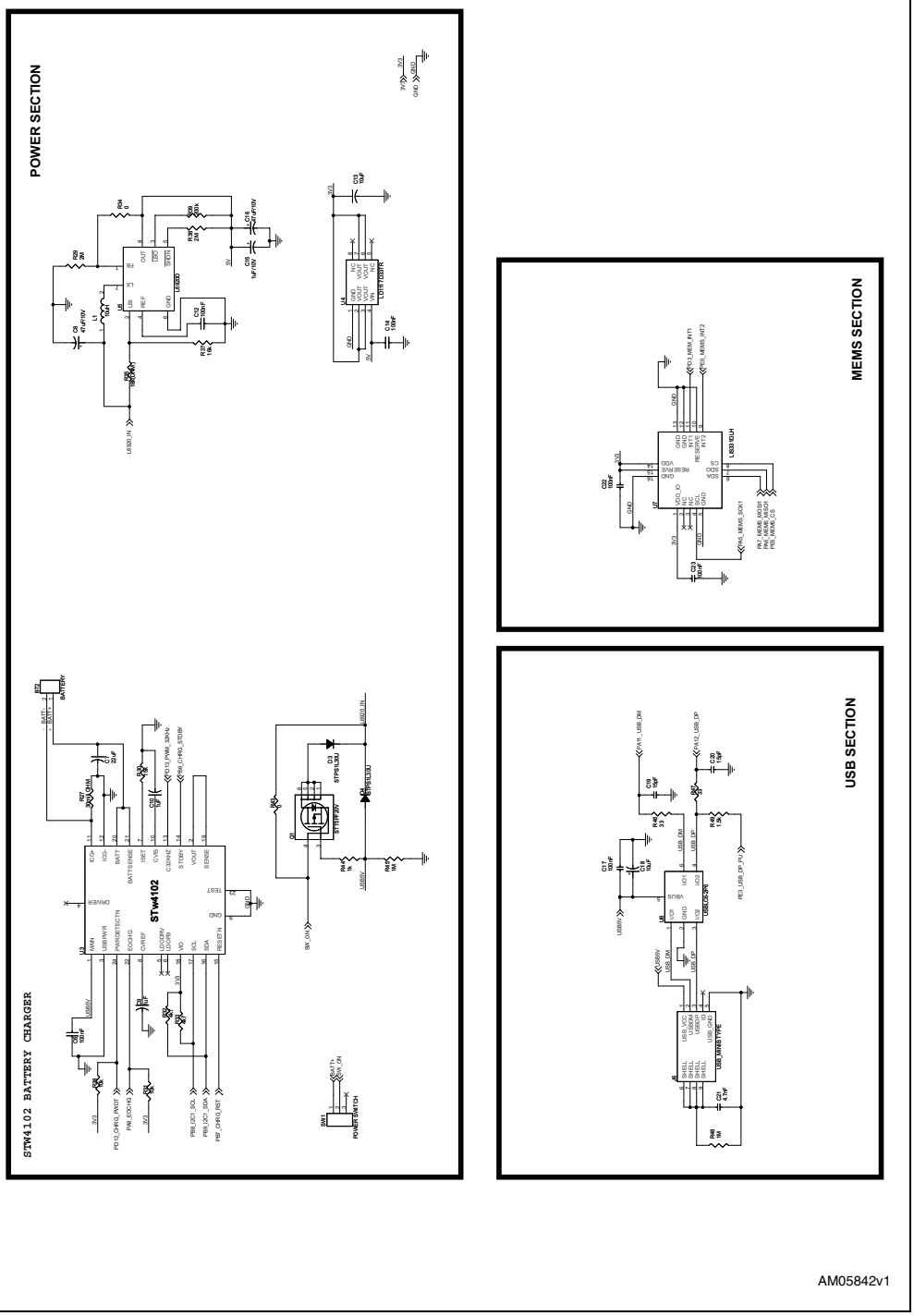
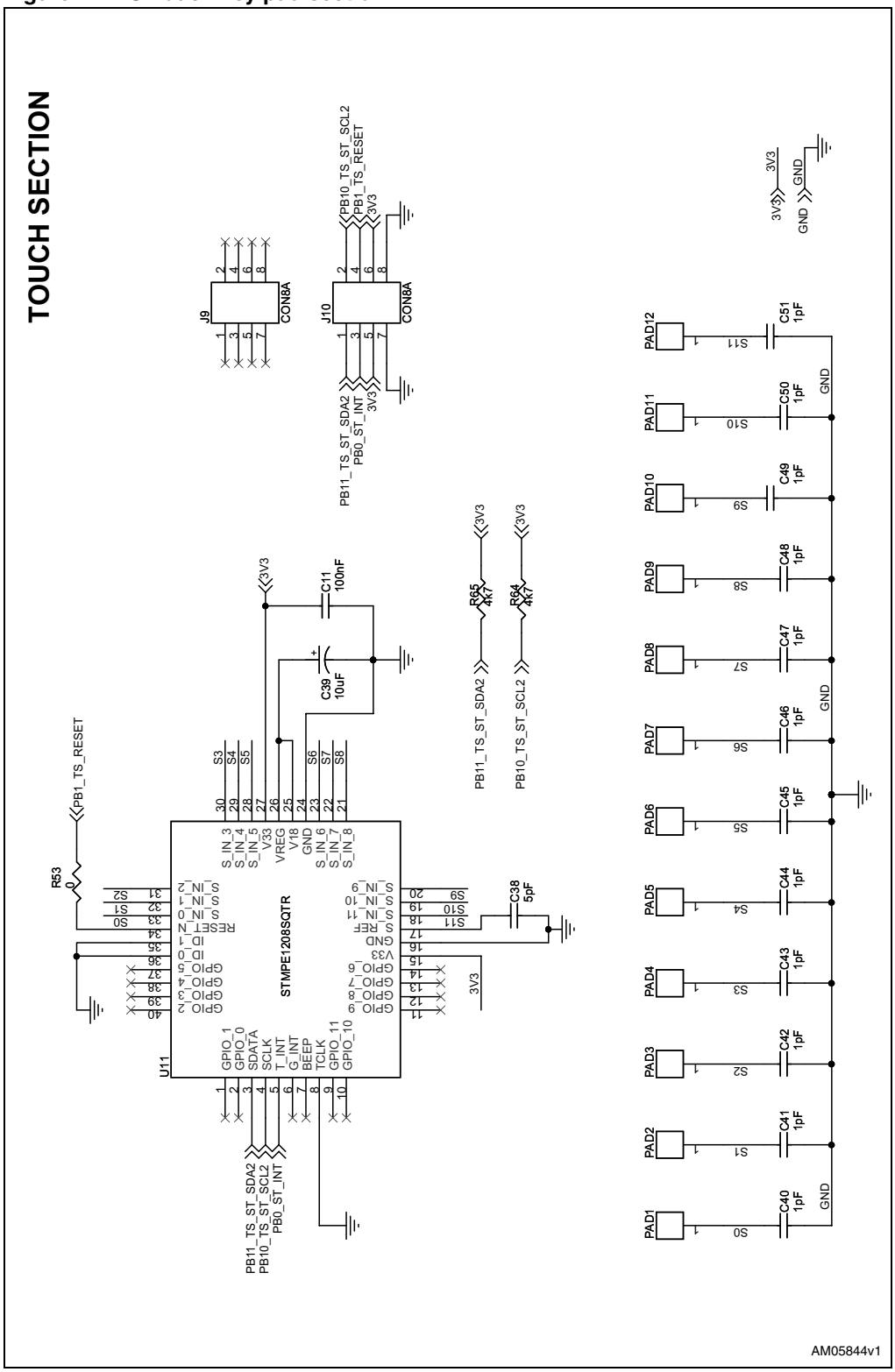


Figure 4. S-Touch key pad section



2 Revision history

Table 1. Document revision history

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

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