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STM32-based NAND Flash driver demonstration board (with TFT MB785/P)

Data brief



Description

The STEVAL-CCM007V2 is a demonstration board for a NAND Flash driver based on the STM32F205ZET6 microcontroller.

It supports 512 byte and 2 kilobyte page SLC NAND Flash, and dynamic detection of NAND Flash based on "Device ID".

The firmware automatically detects which NAND Flash is mounted on the PCB, and functions accordingly.

Features

- Designed for 512 byte and 2 kilobyte page size NAND Flash interfacing using the FSMC interface of the STM32
- Supports both the FAT (ELM_FS) file system and USB mass storage device mode
- Supports garbage collection, wear leveling, bad block management & ECC check
- Displays BMP images stored in NAND Flash on MB785 TFT
- RoHS compliant

1 Schematic diagram

Figure 1. Microcontroller section circuit schematic

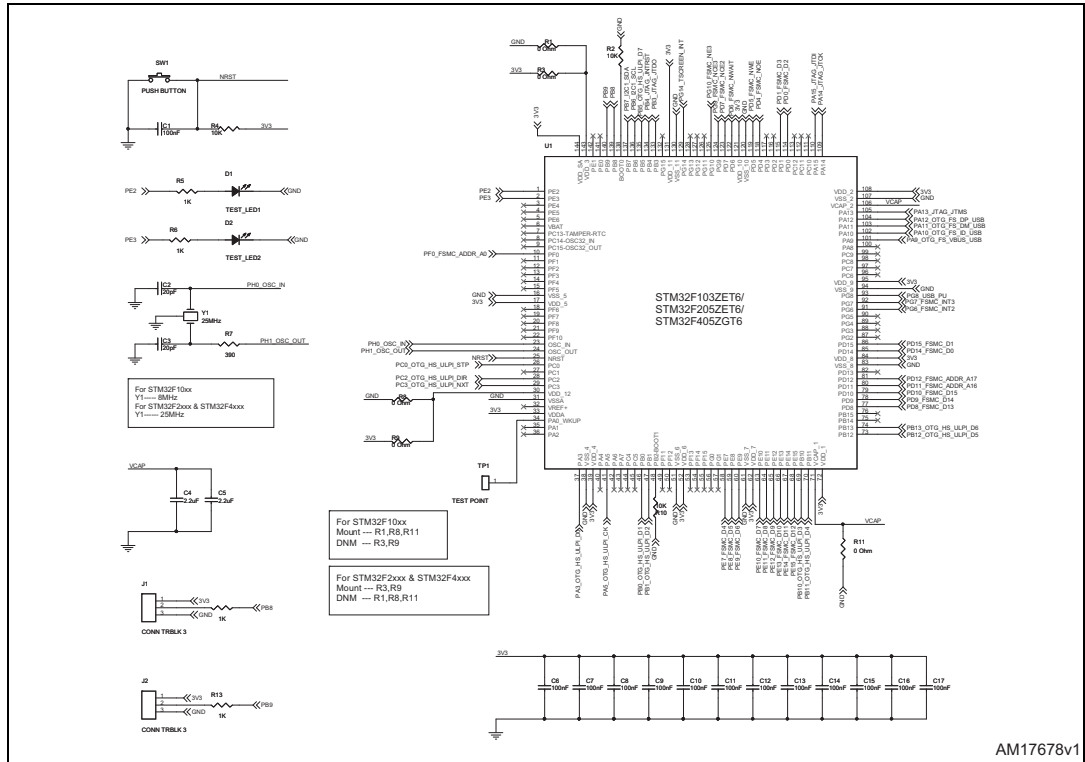


Figure 2. NAND Flash circuit schematic

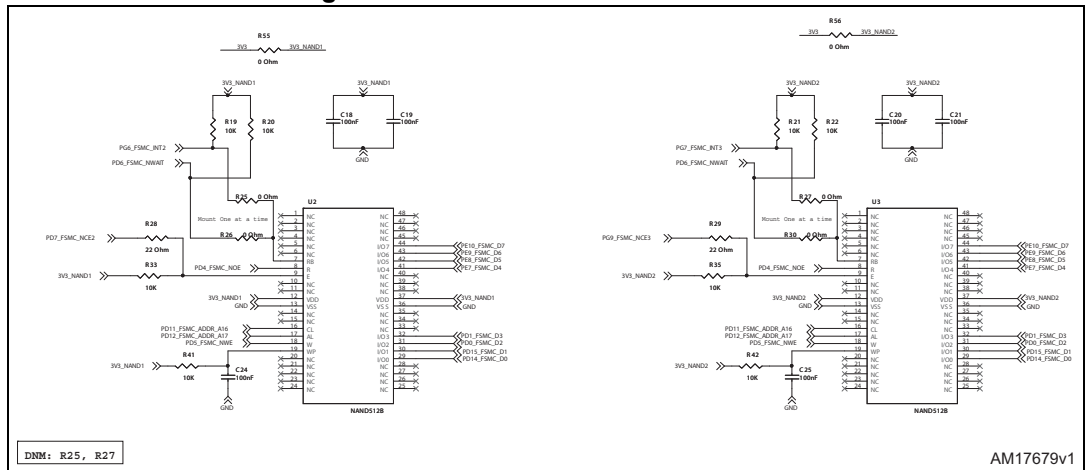


Figure 3. USB full speed circuit schematic

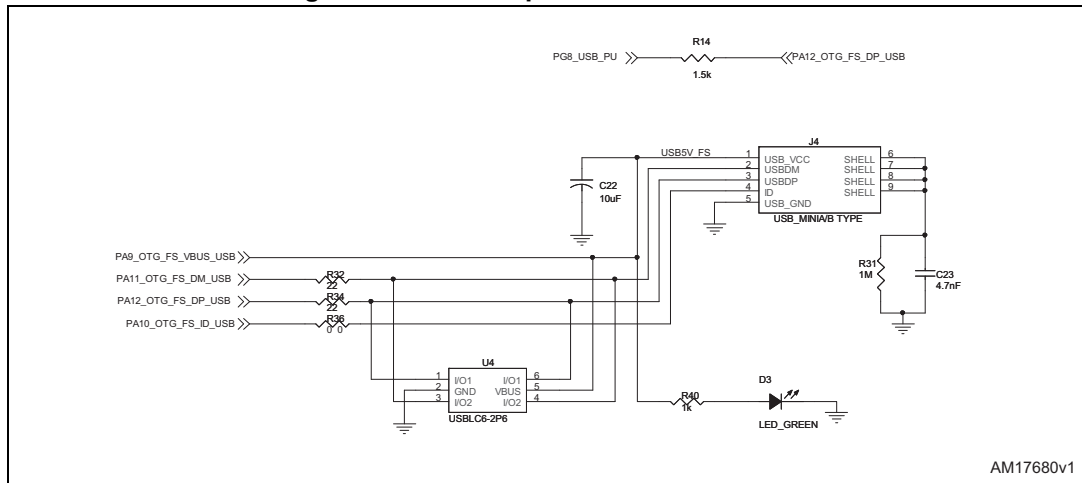


Figure 4. JTAG connector circuit schematic

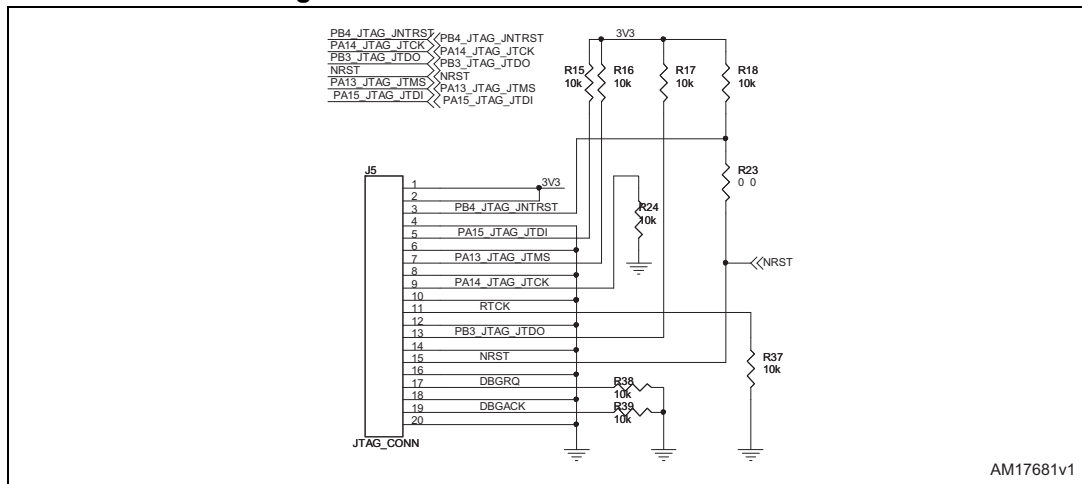


Figure 5. USB high speed circuit schematic

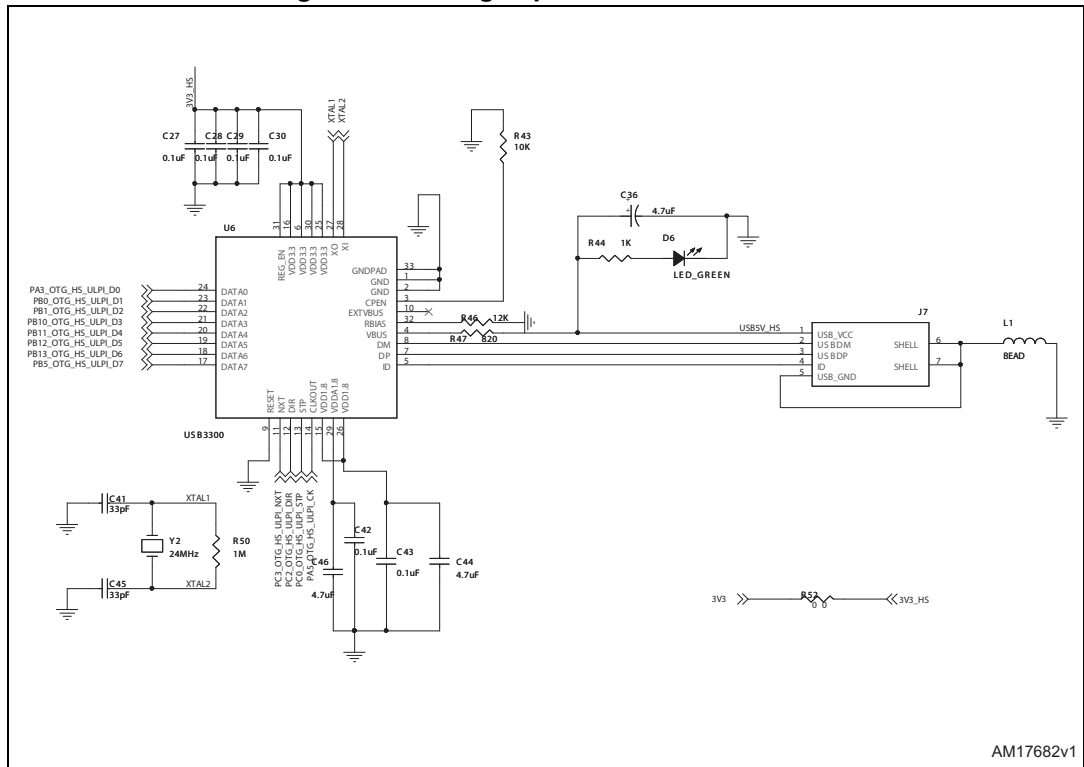


Figure 6. Touch screen controller circuit schematic

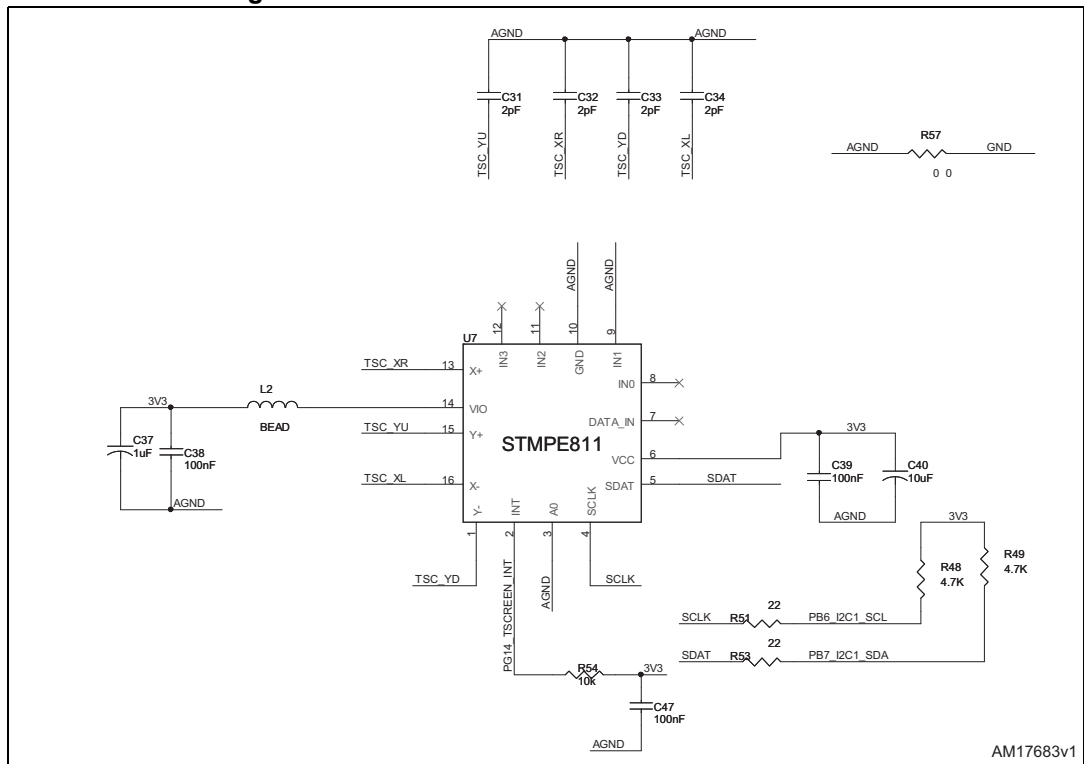
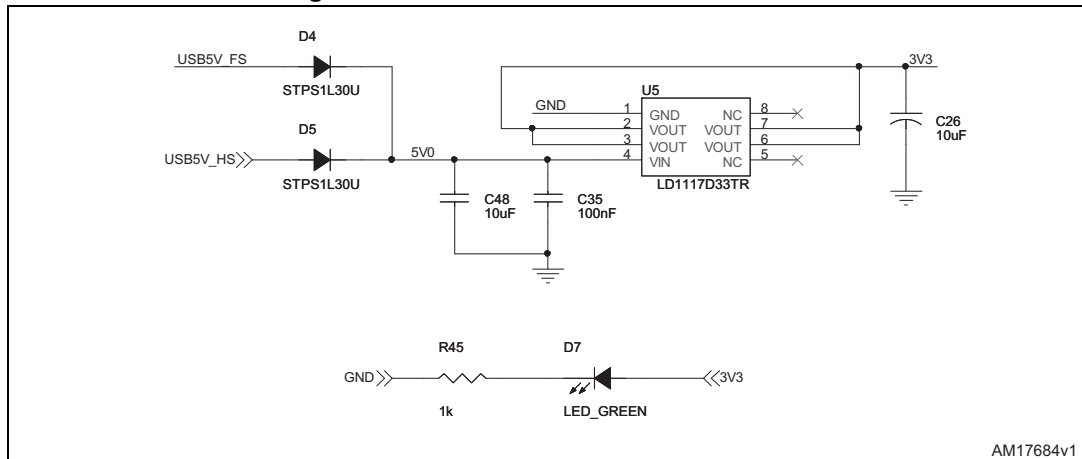
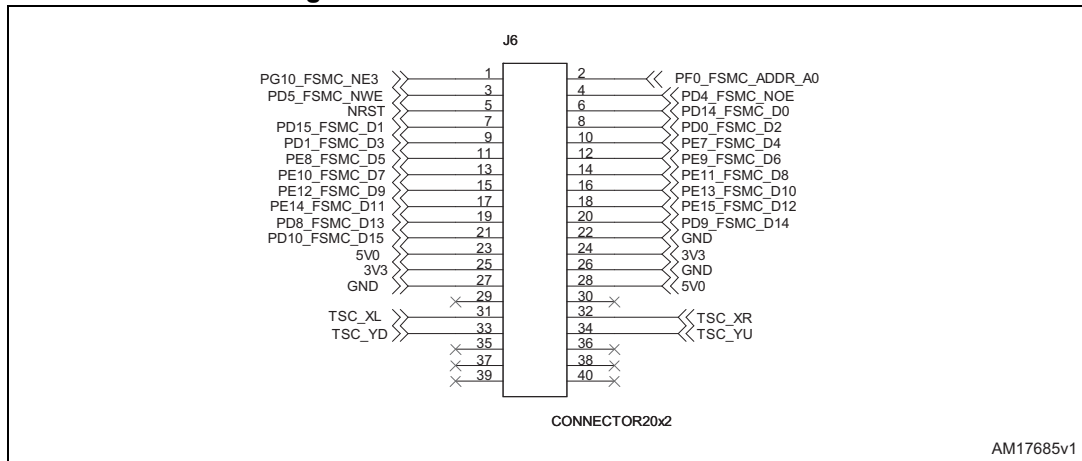


Figure 7. Power section circuit schematic



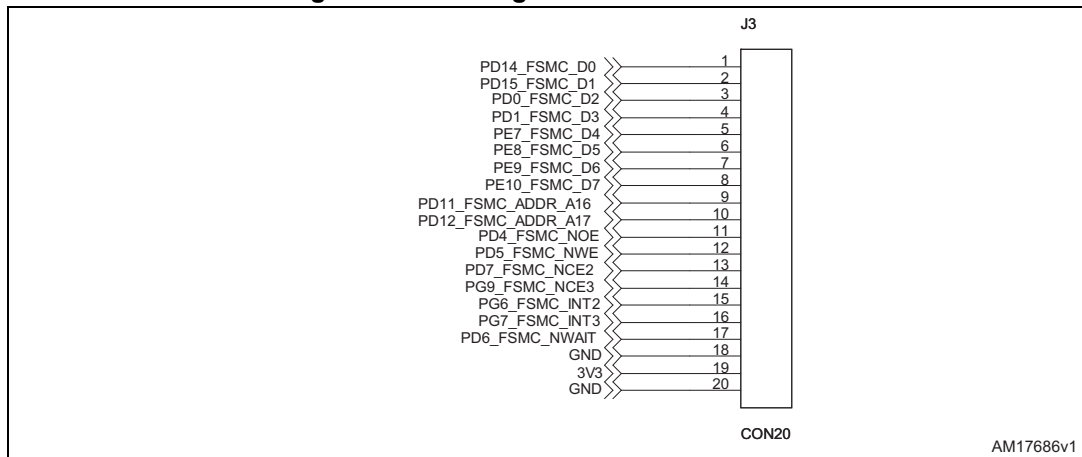
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Figure 8. TFT connector circuit schematic



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Figure 9. NAND signals circuit schematic



AM17686v1

2 Revision history

Table 1. Document revision history

Date	Revision	Changes
30-Sep-2013	1	Initial release.

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