

STEVAL-CCM002V1

TFT-LCD panel demonstration board based on the STM32 as LCD controller

Data brief

Features

- Displays images on a TFT-LCD using the STM32 as LCD controller
- Includes a slideshow of images to demonstrate static display model
- STM32 FSMC (flexible static memory interface) drives TFT using external SRAM as refresh RAM
- On-board constant current drive circuit for LED-based TFT-LCD backlighting
- Dimming control for the TFT-LCD backlighting
- Jumper headers offer easy analysis of TFT-LCD interface to the microcontroller
- RoHS compliant

Description

The STEVAL-CCM002V1 demonstration board is an STM32-based LCD controller for TFT-LCD displays. The board provides a platform for testing the capabilities of the STM32F103VET6 FSMC peripheral to drive a TFT-LCD panel without an LCD controller.

A 3.5" QVGA resolution TFT-LCD panel is interfaced with the STM32 FSMC peripheral. The board is designed to be connected as a daughterboard to the STM3210E-EVAL demonstration kit.



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Schematic diagrams STEVAL-CCM002V1

1 Schematic diagrams

Figure 1. LED section

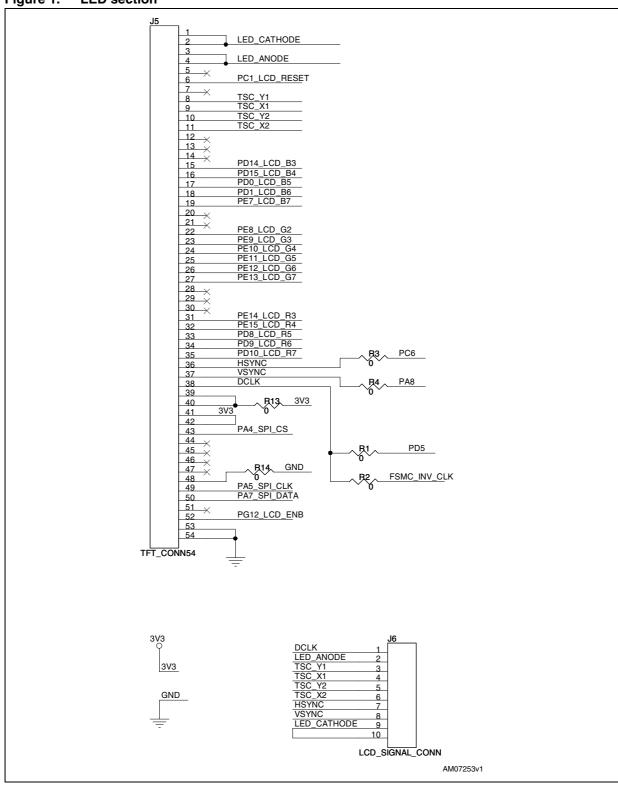
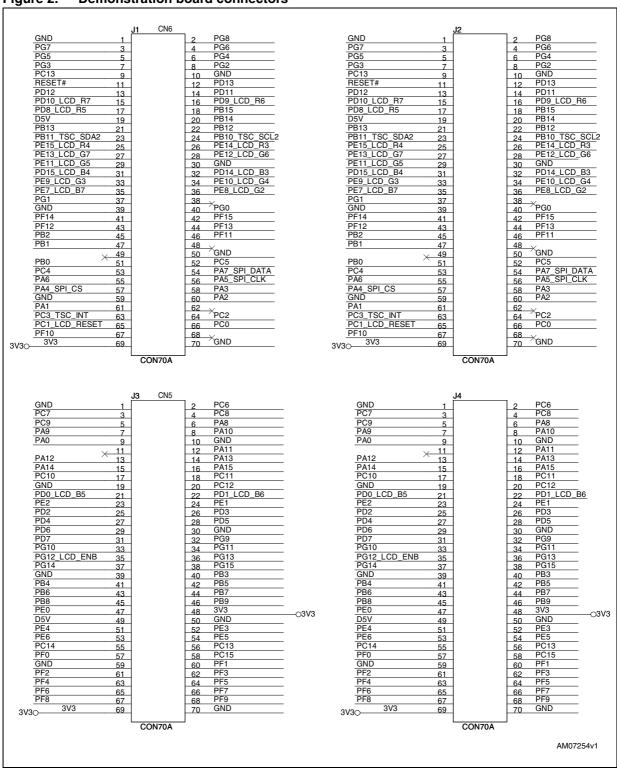


Figure 2. Demonstration board connectors



Schematic diagrams STEVAL-CCM002V1

VCC Single channel inverter FSMC_INV_CLK 74V1G14CTR_SOT323-5L 3V3 L1 4.7uH D1 ▼ STPS1L30A_SMA SW EN VO NC LED_ANODE 3 GND FB LCD backlight driver STLD40DPUR_QFN8 C1 2.2uF R5 R6 100k 8 ohm C2 4.7uF GND C4 =2pF C5 =2pF C6 =2pF Ξ TSC_X2 TSC_X2 3V3 VIO DATA_IN TSC_Y2 15 Touchscreen controller STMPE811QTR C7 100nF TSC_X1 PB11_TSC_SDA2 16 SCLK A0 PB10_TSC_SCL2 PC3_TSC_INT PB11_TSC_SDA2 PB10_TSC_SCL2 AM07255v1

Figure 3. Single channel inverter, LCD backlight driver and touchscreen controller

STEVAL-CCM002V1 Revision history

2 Revision history

Table 1. Document revision history

Date	Revision	Changes
16-Jun-2010	1	Initial release.

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