AC320214

SSD1963 LCD Controller Graphics Card

Overview

The SSD1963 LCD Controller Graphics Card (AC320214) enables controller-based graphics for a large variety of Microchip starter kits. This information sheet provides an overview and a detailed schematic for the SSD1963 LCD Controller Graphics Card.

The SSD1963 LCD Controller Graphics Card is designed specifically to be used with the following boards and display modules:

- SAM E54 Curiosity Ultra (DM320210)
- SAM E70 Xplained Ultra (DM320113)
- Curiosity PIC32 MZ EF 2.0 (DM320209)
- High-Performance 4.3" WQVGA Display Module with maXTouch (AC320005-4)
- High-Performance WVGA LCD Display Module with maXTouch (AC320005-5)

The SSD1963 LCD Controller Graphics Card can be used with other Microchip development hardware. This graphics card can be used in several modes, 8080 MCU mode (default), or 6800 MCU mode. The external graphics controller allows for the addition of graphics to an application where the MCU may not have enough memory or speed to control a large RGB-based TFT LCD display.

For additional information about the SSD1963 LCD Controller Graphics Card, visit Microchip website at http://www.microchip.com.

Features

The following are key features of the SSD1963 LCD Controller Graphics Card:

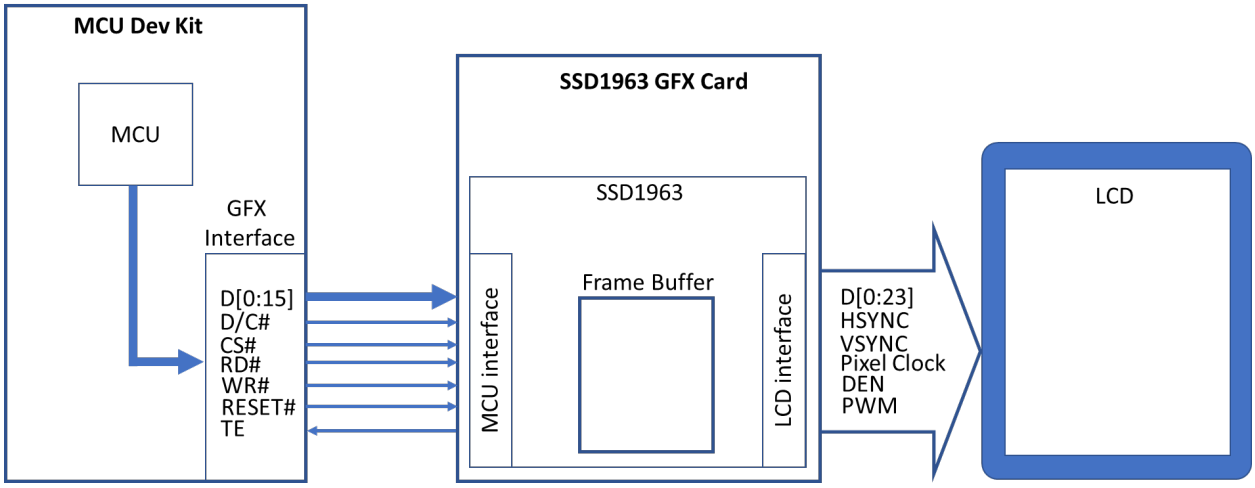
- Built-in 1215-KB frame buffer. Supports up to 864 x 480 at 24 bpp display.
- Support TFT 18/24-bit generic RGB interface panel
- Support 8-bit serial RGB interface
- Hardware rotation of 0, 90, 180, and 270 degrees
- Hardware display mirroring
- Hardware windowing
- Programmable brightness, contrast and saturation control
- Dynamic back light Control (DBC) through PWM signal
- MCU connectivity
- 8/9/16/18/24-bit MCU interface
- Tearing effect signal

Block Diagram

The following block diagram illustrates how the SSD1963 LCD Controller Graphics Card interfaces between a MCU development kit and an LCD panel, it also shows the 8080 mode connection (default).

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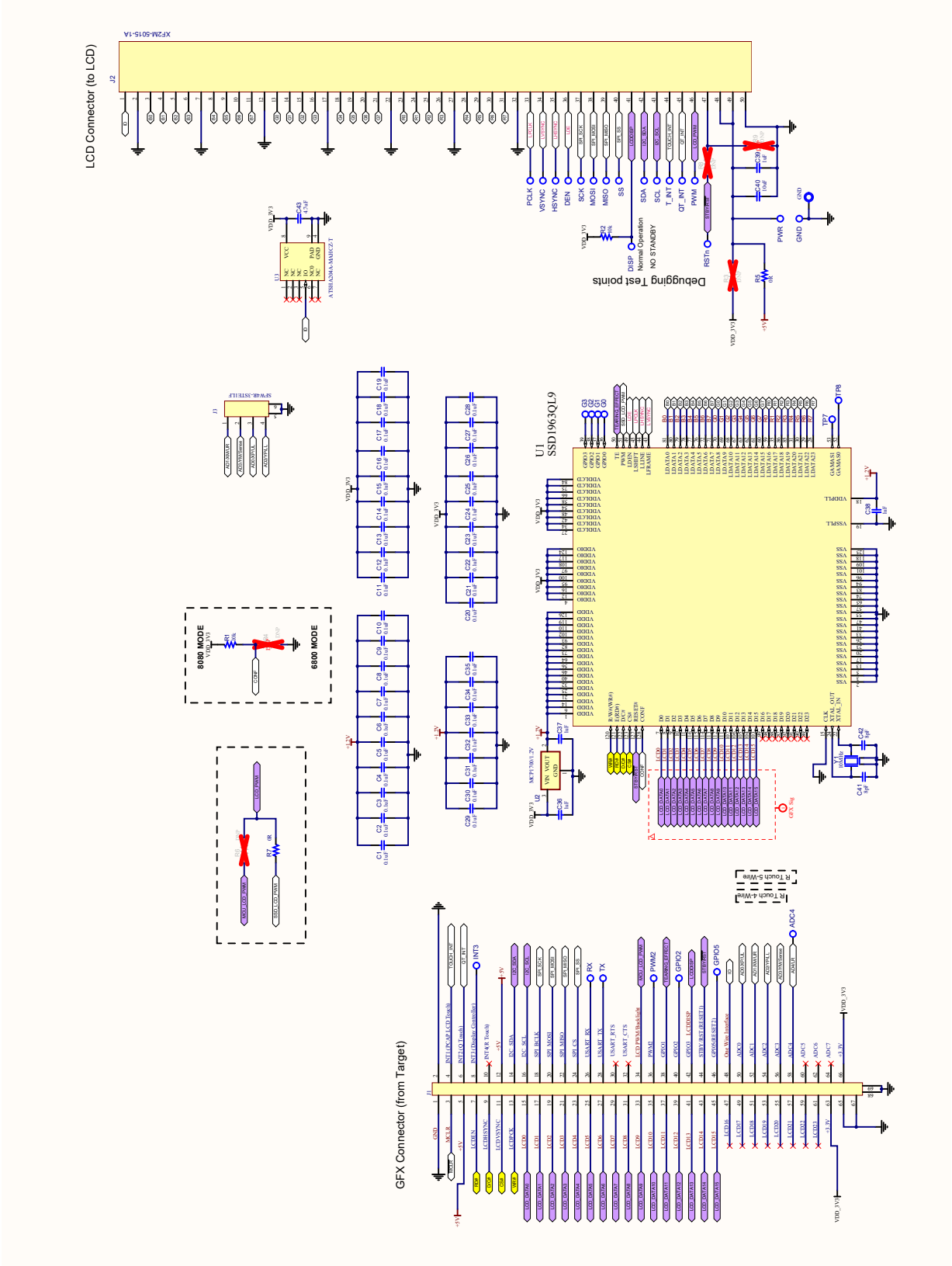
Figure 1. Block Diagram



Additional Information

For additional information on drivers and examples, visit Microchip website at http://www.microchip.com/mplab/mplab-harmony.

1. Schematics



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