

SPC8030F_{0A}

COLOR LCD INTERFACE

■ DESCRIPTION

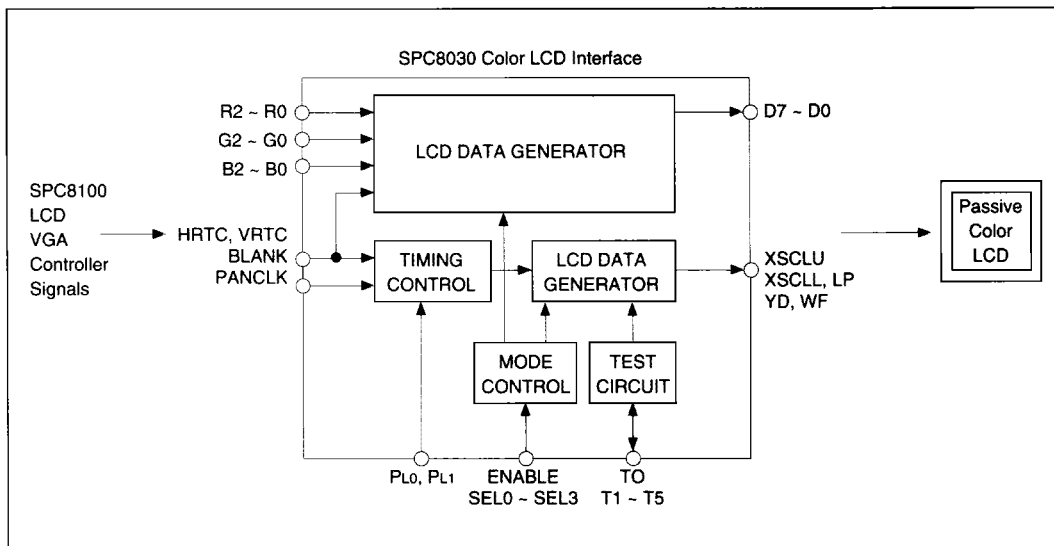
The SPC8030F_{0A} is the companion chip to the SPC8100F_{0A} Low Power LCD VGA Controller for driving Passive Matrix STN Color Liquid Crystal Displays. The color LCD interface chip converts digital Red, Green, and Blue data from the VGA controller to 512 colors on a dual-panel or single-panel color LCD.

The target markets for this device are price and space sensitive notebook computers or other specialized color LCD products where low cost, low power, low component count, and a high quality VGA color image on a 640x480 LCD panel are the major design considerations.

■ FEATURES

- SPC8100 Direct Interface
- LCD Panel Direct Interface
- 5.0 Volt Low Power CMOS
- 44 pin QFP package
- Color Passive STN LCD Panel Interface
- Dual-Panel Dual-Drive & Single-Panel Single-Drive
- 8, 64, or 512 Colors by Frame Rate Modulation
- Panel Size and Duty Ratio independent

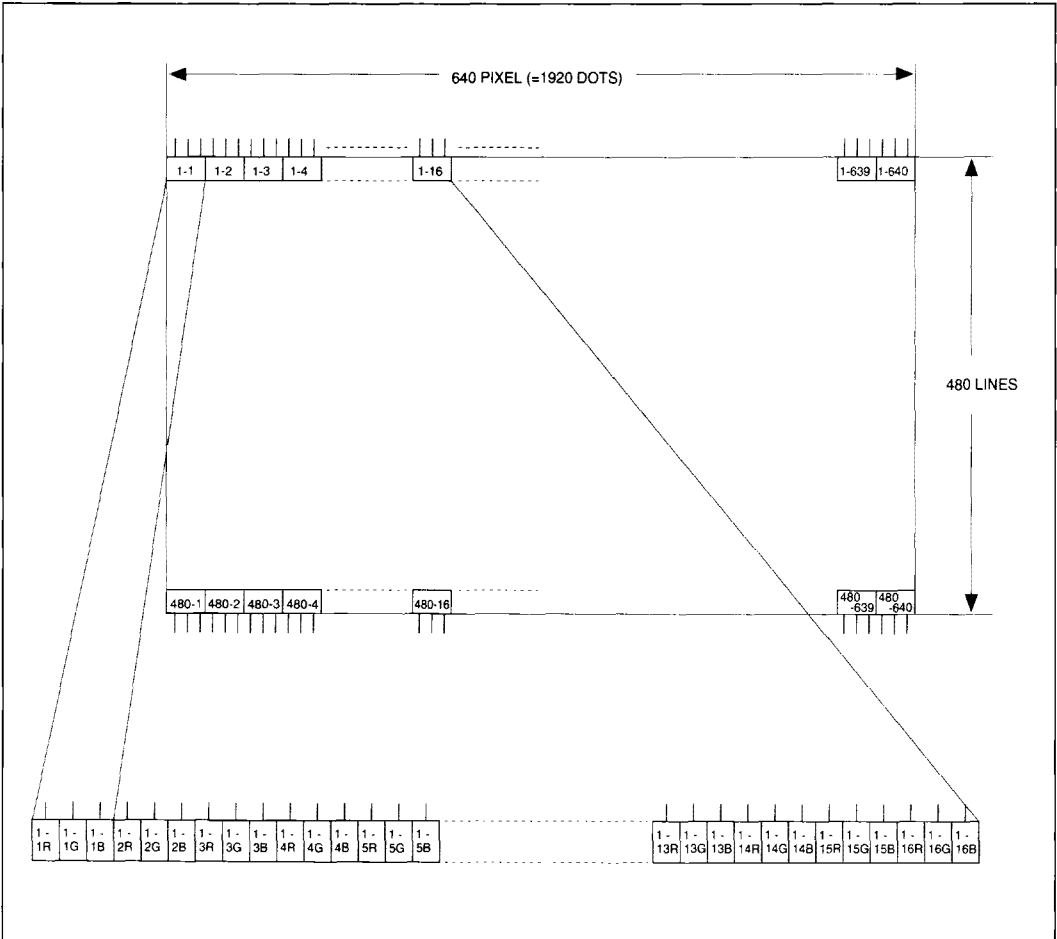
■ BLOCK DIAGRAM



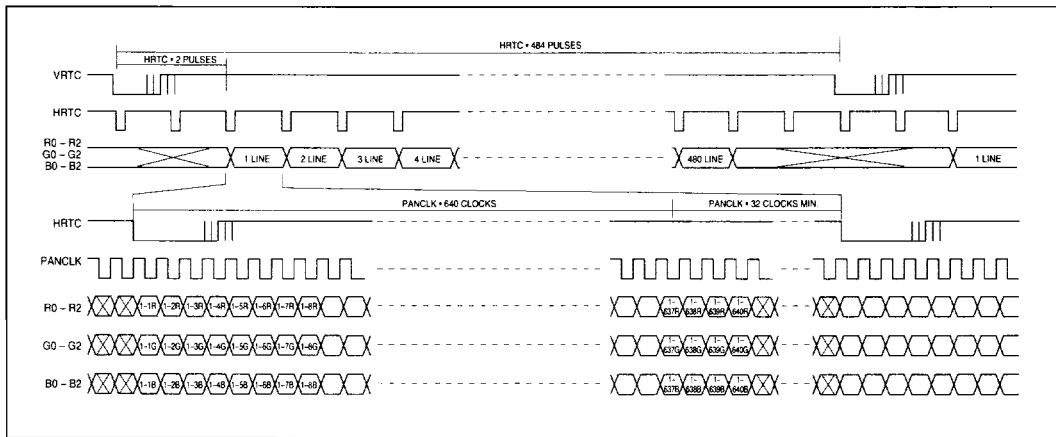
■ TIMING CHARTS

(1) Color LCD Single-panel Drive (1/484 duty)

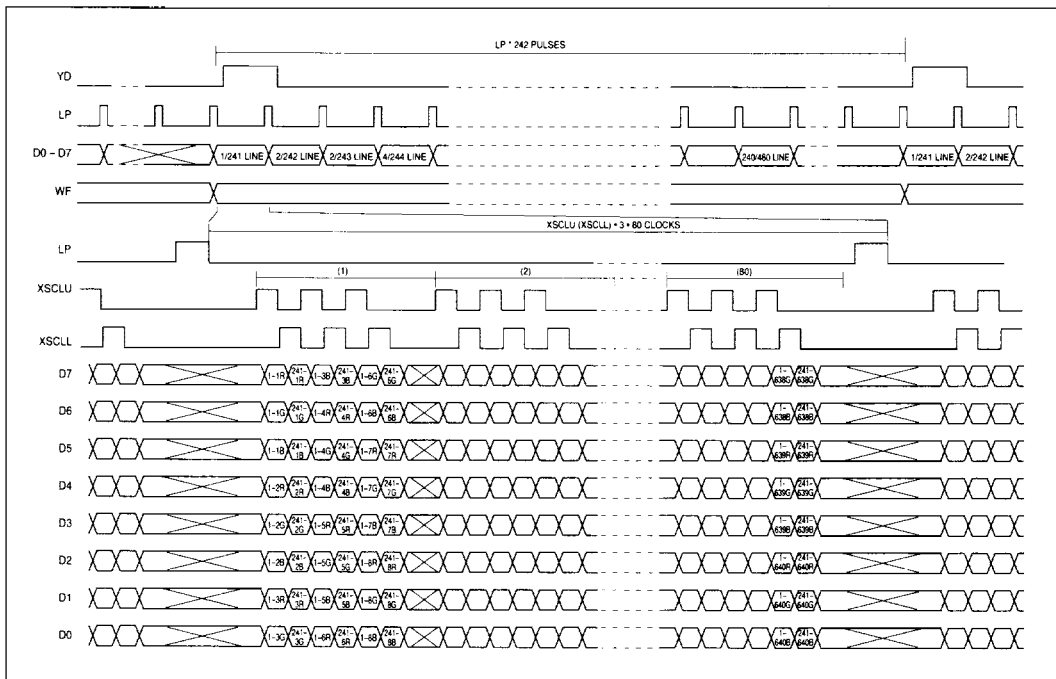
Relationship between the pixel data and the data on the LCD panel



● Input Timing



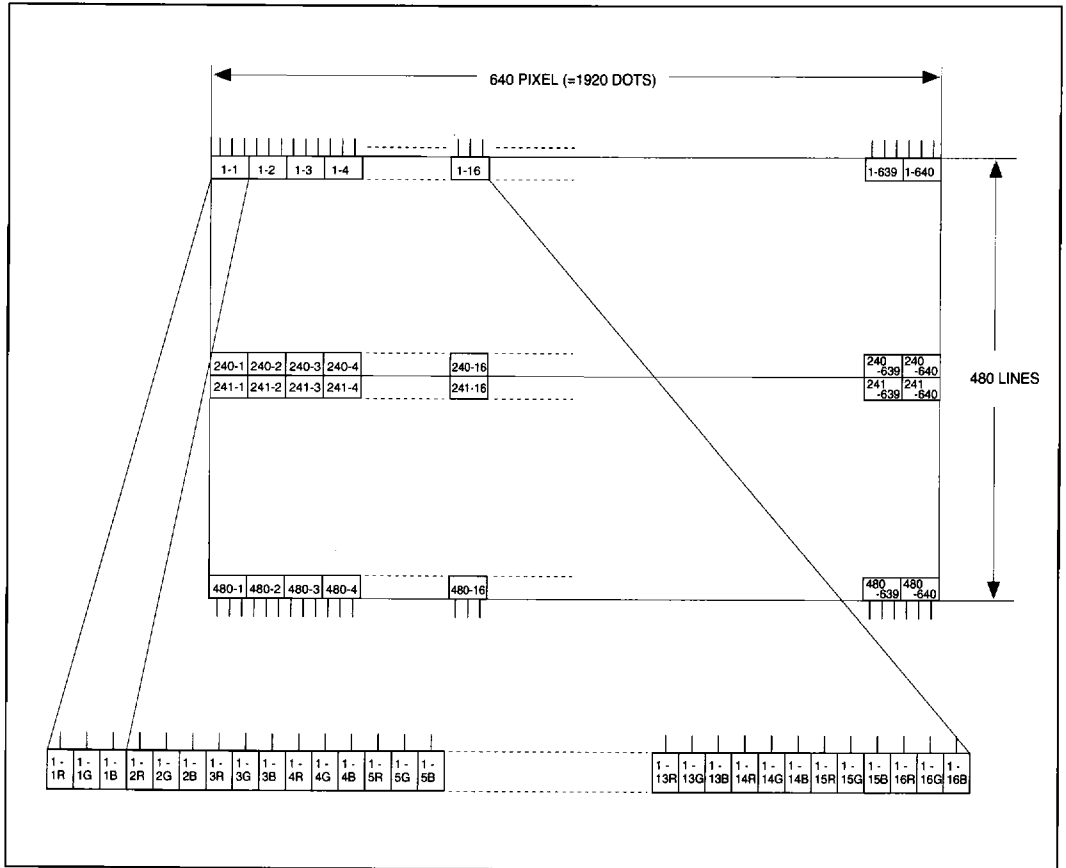
● Output Timing



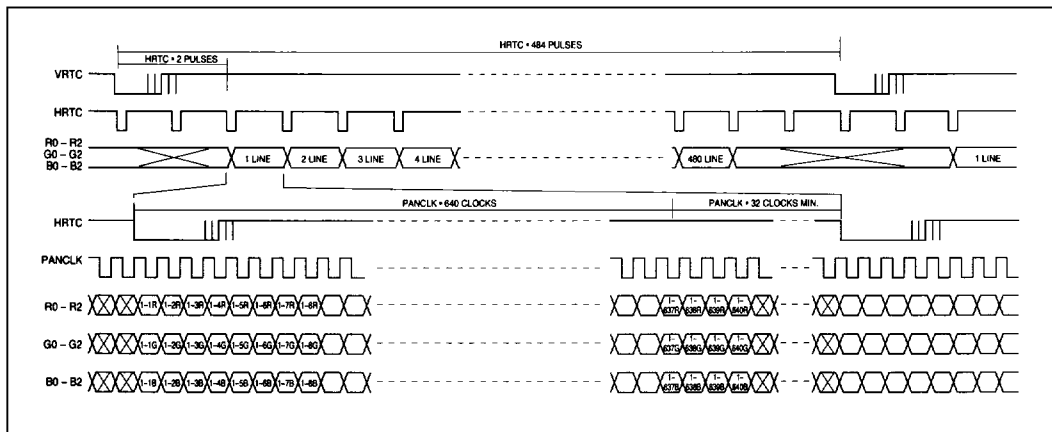
■ TIMING CHARTS

● (2) Color LCD Dual-panel Drive (1/242 duty)

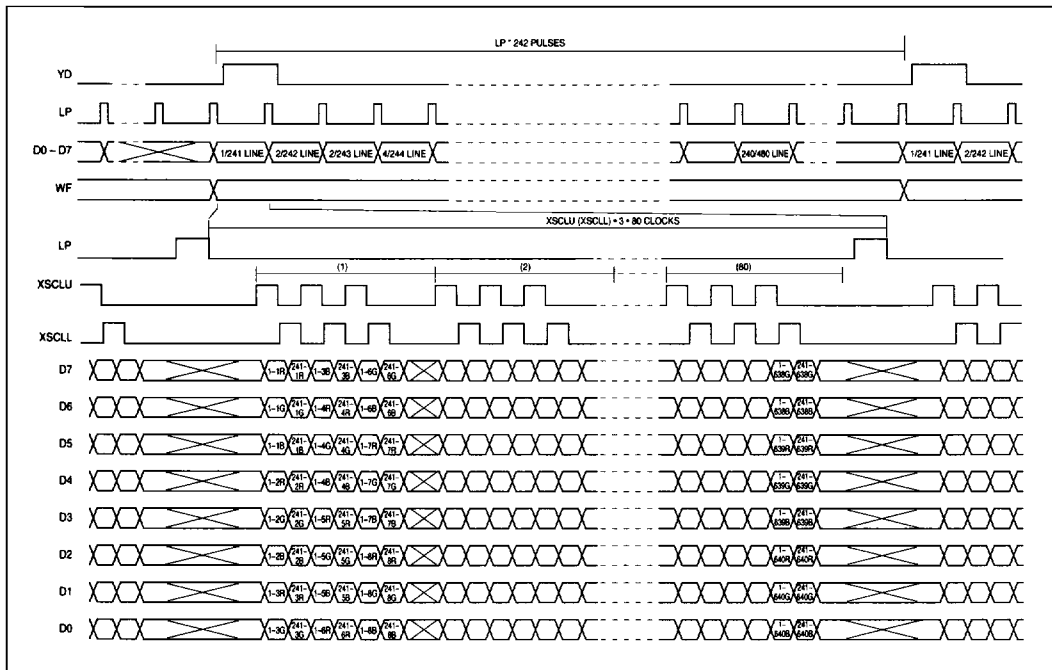
Relationship between the pixel data and the data on the LCD panel



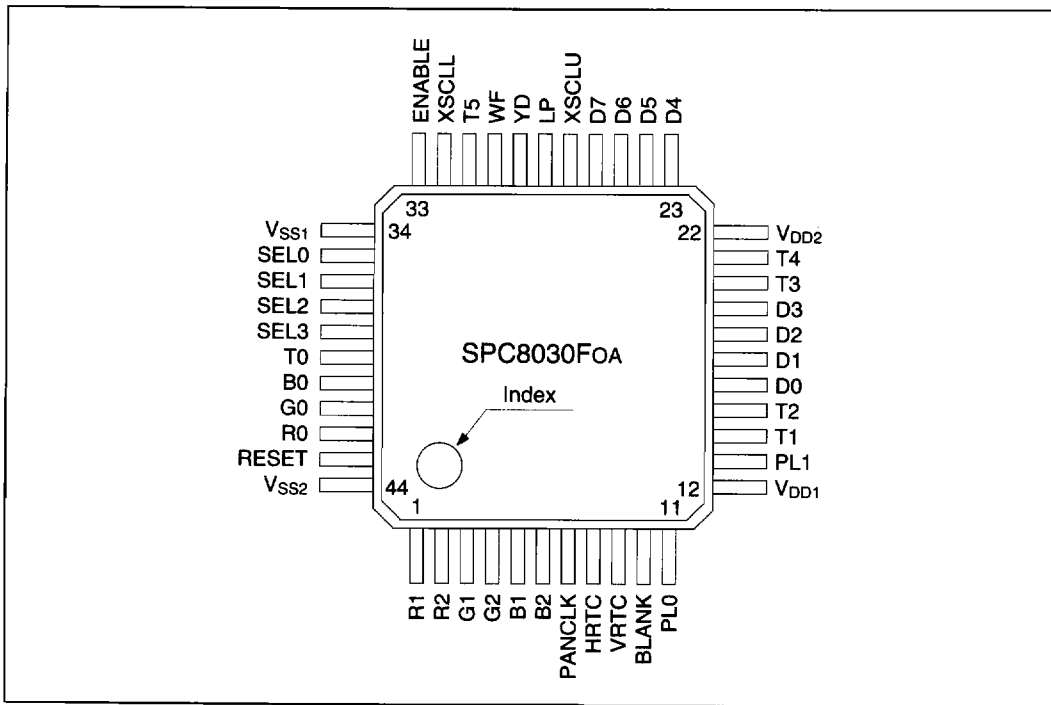
● Input Timing



● Output Timing



■ PIN CONFIGURATION



■ PACKAGE DIMENSIONS

