FPD80200 LCD TV TFT-LCD Timing Controller with PPDS™ Interface

Check for Samples: FPD80200

FEATURES

- **Targeted at WXGA (1280x768) and HDTV (1366x768) applications for LCD TV**
- **Differential point-to-point interface to column drivers**
- **10-bit resolution LUT for digital independent gamma support**
- **Response time compensation support (8-8-8) includes external DDR memory interface**
- **Single FPD-Link™ input bus for high speed, low EMI**
- **90 MHz input clock rate**
- **Operating Supply Range: V_{cc} = 2.25 to 2.75V**
- **Optional 3.3V Outputs to support Row Driver compatibility**
- **Optional EEPROM programming allows finetuning in development and production environments. (24LC64 or equivalent)**
- **EDID version 1.3 and 2.0 supported with the optional EEPROM.**
- **Internal pattern generation for panel self-test**
- **Supports data configuration for 384 or 414 output column drivers**
- **144-pin LQFP package**

DESCRIPTION

The FPD80200 timing controllers (TCONs) are designed to meet the needs of today's advanced LCD TV applications. The FPD80200 supports both WXGA (1280 x 768) and WXGA+ (1366 x 768) resolutions with true 8-bit color (16.7 million colors).

When combined with the FPD48084 column driver, the FPD80200 provides true independent gamma curves for the red, green, and blue subpixels through internal lookup tables (LUTs). The FPD80200 also uses an advanced Response Time Compensation algorithm to improve the motion video performance of the LCD panel.

The FPD80200 TCONs incorporate National's PPDS™ interface (Point to Point Differential Signaling) that enables advanced features, independent column driver control, large panel sizes, and lower overall system cost.

Panel timing and control parameters can be programmed into an internal ROM for production or changed using and external EEPROM for initial product development.

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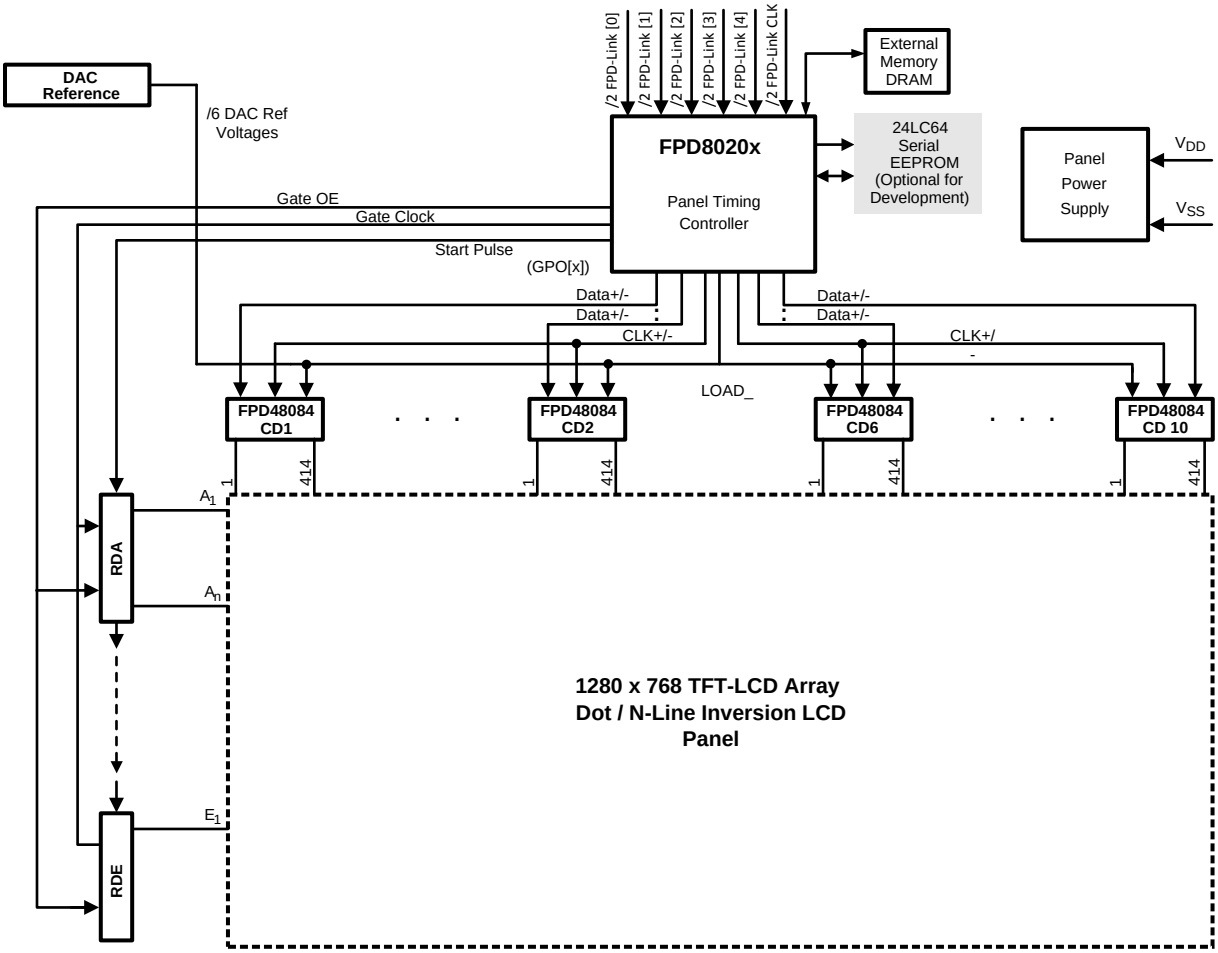
These devices have limited built-in ESD protection. The leads should be shorted together or the device placed in conductive foam during storage or handling to prevent electrostatic damage to the MOS gates.



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