EW9181 Product Brief

EW9181 is an 8-bit (366/360/330/324/294/288/246/240 channels) Source Driver for TFT LCD with the Mini Low Voltage Differential Signaling (Mini-LVDS) interface. It delivers a display of 16, 777, 216 colors by 256 of gamma-referenced output values that are controlled by an internal D/A converter and 18 external references. Also, the Mini-LVDS interface is integrated into EW9181 to improve data transfer speed, reduce EMI effects, and minimize wiring on the PC board. Both dot-line inversion and n-line inversion schemes are supported. The polarity of output gray scale voltage at the odd output pins is opposite to the polarity at the even output pins in EW9181. EW9181 uses Half Analog Power for reducing power consumption & chip surface temperature.

Features

- Source driver for active matrix LCD
- 366/360/330/324/294/288/246/240 LCD driving output channels
- GMA1 ~ GMA18 for adjusting Gamma correction with 8-bit resolution / 256 gray scale
- Output dynamic range: 0.2V ~ VDDA-0.2V
- Mini-LVDS input interface: Mini Low Voltage Differential Signaling
  - Mini-LVDS input interface for low EMI
  - Minimum mini-LVDS input swing level (CLKP, CLKN, LVxP, LVxN) is 100mV
  - Maximum Bandwidth: 330MHz (3.0V≦VCC≦3.6V) 250MHz (2.3V≦VCC< 3.0V)
- Function
  - H-1Dot (and H-2Dot) and N-line inversion display function provided
  - Cascade function with bi-direction shift control
  - Offset canceling function
  - Half VDDA function
  - Abnormal display prevention mode during power on sequence
  - In rush current protection scheme during reverse power on sequence
- Power supply voltage
  - Power for logic circuit (VDDD): 2.3V~3.6V
  - Power of LCD driving voltage (VDDA): 12.0V ~ 18V
  - Half Power for VDDH: (1/2 VDDA) +/-0.2V
- COF Packaging

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