

EW9180 is 8-bit (256 Gray-Scales) source driver for TFT LCD with 1026/966/960/912/486/480 channels. It provides direct drive, and full dynamic range to drive 16, 777, 216 color TFT LCD displays. Using LBR, users can get a benefit of easy LCD wiring. EW9180 has a maximum clock frequency of 400MHz, and use a logic voltage of 3.0V~3.6V. An adoption of Mini Low Voltage Differential Signaling (Mini-LVDS) interface could realize very low EMI and the reduction of the number of input ports.

## Features

- Source driver for active matrix LCD
- 1026/966/960/912/486/480 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.
  - Minimum mini-LVDS input swing level (CLKP, CLKN, LVxP, LVxN) is 120mV
  - Maximum Bandwidth: 400MHz (VID=200mV), 330MHz (VID=120mV)
- Function
  - H-1Dot (and H-2Dot) and N-line inversion display function provided
  - Cascade function with bi-direction shift control
  - Offset canceling function
  - Adoption of LBR port for easy LCD wiring
  - Half VDDA function
  - Repair Amps (2ea)
  - Abnormal display prevention mode during power on sequence
  - Inrush current protection scheme during reverse power on/off sequence
- Power supply voltage
  - Power for logic circuit (VDDD): 3.0V~3.6V
  - Power of LCD driving voltage (VDDA): 12V~18V
  - Half Power for VDDA (VDDAH): (1/2 VDDA) +/- 0.2V
- Power consumption
  - Power consumption of digital circuit: 16mA
  - Power consumption of analog circuit: 20mA
- COF packaging

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