HX8102B

480 CH 8-bit TFT Source Driver

June 2003, Version 01

1. General Description

The HX8102B is a 480 channels output source driver used for driving the source line of TFT LCD panel. The HX8102B receives 8-bit by 6 dots of digital display data per clock from external and generates corresponding 256-level gray scale voltage output, which can realize a 16.7M colors display simultaneously. Since the output circuit of this source driver incorporates an operational amplifier, a positive and a negative voltage can be alternately output from each channel. Therefore, a high quality display with less cross-talk can be achieved.

2. Features

- 480 channels output source driver for TFT LCD panel
- Maximum 13.3V_{P-P} output dynamic range
- Input of 8-bit by 6 dots per clock
- Capable of output 256 gray scales by means of 18 external γ reference voltage
- Applicable for dot inversion, column inversion, and n-lines inversion driving method
- Incorporate input data inversion function to reduce power dissipation
- Incorporate operational amplifier in the output circuit of each channel
- Prechargeless output buffer
- Polarity inversion output to each channel
- Right or left shift data input selectable
- 70MHz maximum operation frequency
- 3.3V $\pm$ 0.3V logic supply voltage
- 8.0V to 13.5V LCD driver supply voltage