



HX8205A

480CH 6-bit TFT LCD Source Driver
for AV Application

PRELIMINARY

December 2002, Version 02

1. General Description

The HX8205A is a 480 channels output source driver used for driving the source line of TFT LCD panel. The HX8205A receives 6-bit by 3 dots of digital display data per clock from external and generates corresponding 64-level gray scale voltage output, which can realize a 256K colors display simultaneously. Since the output circuit of this source driver incorporates an operational amplifier, a positive polarity and a negative polarity voltage can be alternately output from each channel. Therefore, a high quality display with less cross-talk can be achieved.

2. Features

- 480 output source driver for TFT LCD panel
- Output dynamic range: $V_{SS2} + 0.1V \sim V_{DD2} - 0.1V$
- Input 6-bit by 3 dots per clock
- Capable of output 64 gray scales by means of 5 external γ reference voltages
- Applicable line 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
- Output signal slew rate control input selectable
- Right or left shift data input selectable
- 15MHz maximum operation frequency
- 2.2V to 3.6V logic supply voltage
- 4.5V to 5.5V LCD driver supply voltage