



HX8006A

384 CH 6-bit TTL/RSDS COG TFT Source Driver

June 2003, Version 01.2

PRELIMINARY

1. General Description

The HX8006A is a 384 channels output source driver suitable for Reduced Swing Differential Signaling(RSDS) and TTL digital interface, which is used for driving the source line of TFT LCD panel . The HX8006A converts TTL 36 bit / RSDS 18-bit digital data into the analog voltage for 384 channels 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 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

- 384 output selectable source driver for TFT LCD panel
- Maximum $13.3V_{P-P}$ output dynamic range
- Capable of output 64 gray scales by means of 14 external γ reference voltages
- Applicable for dot inversion, column inversion, and n-lines inversion driving method
- Incorporate operational amplifier in the output circuit of each channel
- Reduced Swing Differential Signaling (RSDS) digital interface for low EMI.
- Prechargeless output buffer
- Polarity inversion output to each channel
- Right or left shift data input selectable
- 85MHz maximum operation frequency for RSDS
- 70MHz maximum operation frequency for TTL
- $3.3V \pm 0.3V$ logic supply voltage
- 8.0V to 13.5V LCD driver supply voltage
- COG is available upon the request of customer's application