



# HX8002A

## 384 CH 6-bit RSDS TFT Source Driver

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PRELIMINARY

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### 1. General Description

The HX8002A is a 384 channels output source driver suitable for Reduced Swing Differential Signaling(RSDS) digital interface, which is used for driving the source line of TFT LCD panel . The HX8002A converts 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<sub>P-P</sub> output dynamic range
- Capable of output 64 gray scales by means of 10 external  $\gamma$  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
- 3.3V $\pm$ 0.3V logic supply voltage
- 8.0V to 13.5V LCD driver supply voltage