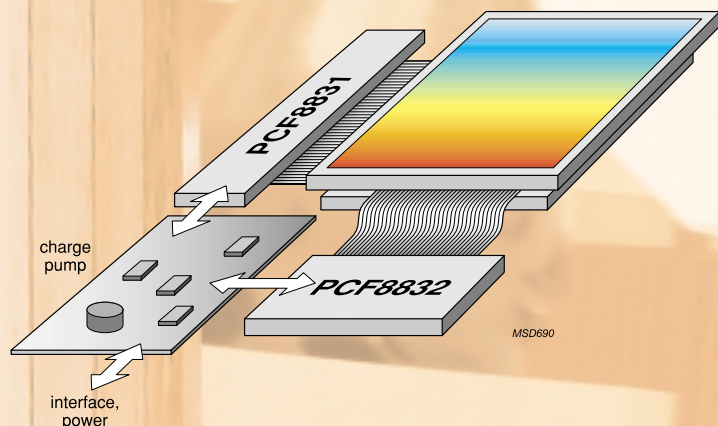


Philips Semiconductors announces PCF8831, PCF8832 a chipset to drive and control a color STN LCD panel for mobile applications.

## PCF8831: Row Driver PCF8832: Column Driver for STN color displays



### Features:

- 160 Rows
- 128 x 3 (RGB) columns
- Cascade mode to control 160 x 240 (RGB)
- 256 colors (R,G,B = 3,3,2 bits)
- With dithering color resolution >4k color
- Display data RAM 168 x 128 x 8 (RGB)
- Low power consumption <2mW
- Supports module calibration

### • Display features

- Area scrolling, to minimize software overhead
- Partial display mode with mux 1:8 to 1:160 for reduced power operation
- Landscape / portrait mode
- Software programmable grey scale: frame rate control over 7 of 9 frames
- N-line inversion (N=1...159)
- Temperature compensation

### • Interfaces

- 8 bit parallel
- I<sup>2</sup>C-bus
- 3/4 line serial SPI
- 3 line serial

### • Voltage ranges

- Logic supply: 1.5 to 3.3V
- Analog supply: 2.4 to 3.5V
- Display supply: 2.5 to 4.0V
- Display operation up to 40V

### • Architecture

- Alt & Pleshko drive technique
- Row driver handling high voltages
- Column driver handling low voltages incorporating also display RAM, interface, control logic and voltage multiplier control
- Inductive charge pump using one inductor and few discretes
- Column driver with gold bumps for chip on glass or chip-on-foil (COF)
- Row driver with gold bumps for chip-on-foil (COF)

### • Delivery form

- Chip with gold bumps in tray for chip-on glass and chip-on-foil applications
- Chip on tape carrier package (TCP)

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Printed in The Netherlands

Date of release: May 2001

Document order number: 9397 750 08357

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