



**LinearDimensions**  
SEMICONDUCTOR

**LND8924**

**DRIVER: 160 Output, 8 Input, Dynamic Drive Ch-LCD Driver**

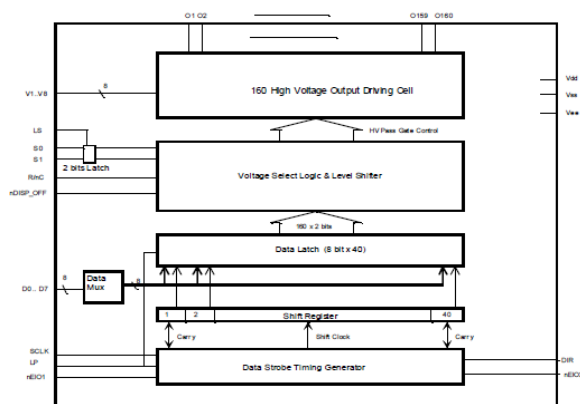
## GENERAL DESCRIPTION

The LND8924 features 160, 0-60V, outputs fed by eight (8) individually addressable voltage levels (V1-V8). The LND8924 is implemented in a sub-micron, high voltage process. The LND8924's versatile truth table enables both row and column driver functionality for both conventional and Dynamic Drive updating schemes. Dynamic Drive and the low 1 ohm channel resistance allow fast refresh of displays such as Ebooks overcoming the slow, user observable, refresh rates that have restricted use of Ch-LCD displays.

Utilizing a slim aspect ratio, the LND8924 is suitable for slim Tape Carrier Packaging (TCP) and Chip On Glass (COG) applications. A token structure, 8-bit data bus combined with two global state bits enables a cascade design capable of high speed data loading with a minimized footprint.

The LND8924 operates over a temperature range of  $T_j = -40C$  to  $150C$ .

## Block Diagram



Driver Functional Block Diagram

## FEATURES

- 160 output driver
- Combination row / column driver
- 60V output capability
- Allows fast refresh:
  - 1 ohm channel resistance
  - Dynamic drive
- Conventional or Dynamic Drive
- Slim die format (16.5mm X 2mm)
- Flip chip on flex (COF) or; Chip on glass (COG) compatible
- High speed two wire digital interface:
  - 8 MHz clock rate
  - 8 x 40 bit data bus
  - Daisy chain multiple LND8924s
- Up to  $T_j = 150C$  Operation

## APPLICATIONS

- Cholesteric Display Drivers
  - Ebooks (Dynamic Color)
  - Billboards / Signs
  - Navigation Displays
  - Automotive Instrumentation
- Actuator Control
- Medical Ultrasound
- Test & Instrumentation:
  - 160 to 8 or;
  - 8 to 160 Addressable Mux
  - DAQ Interface
- Print Head Driver
- MEMs Devices

## DIE IMAGE

