MIC10951

V. F. Bargraph and Numeric Display Controller

Summary Information*—Not Recommended for New Designs

General Description

The MIC10951 Bargraph and Numeric Display Controller is an LSI general purpose display controller designed to interface to bargraph and numeric displays (vacuum fluorescent or LED).

The MIC10951 will drive 16-segment bargraph or 7-segment plus comma and decimal numeric displays with up to 16 display positions. The controller accepts command and data input words on a clocked serial input line. Commands control the on/off duty cycle, starting character position, and number of characters to display. Encoded data words display bargraph position (single segment or increasing bar length), numbers, comma, decimal, and selected upper and lower case letters. No external drive circuitry is required for displays that operate on 20mA of drive current up to 50V. A 64 × 16-bit segment decoder provides character set decoding for the display.

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Features

- 16 segment drivers plus decimal point and comma tail drivers
- 16 digit drivers
- Up to 66kHz data rate
- Direct digit drive of 20mA for up to 50V displays
- Supports vacuum fluorescent or LED displays
- Serial data input for 8-bit display and control data words
- 64 × 16-bit PLA provides segment decoding driving
    - Any 1 of 16 bargraphs segments
    - 1 to 16 bargraph segments
    - Ten 7-segment numeric characters (0 through 9)
    - Comma and decimal
    - 8 upper and lower case 7-segment characters
- Command functions
    - Duty cycle adjust
    - Character position select
    - Number of characters
- 40-pin DIP package

Ordering Information

Part Number	Drive	Temp. Range	Package
MIC10951P-40/ MIC10951P-50†	50V	0°C to +70°C	40-pin P-DIP
MIC10951PE-40/ MIC10951PE-50†	50V	−40°C to +85°C	40-pin P-DIP

† Dual-marked devices replace both 40V and 50V versions

Block Diagram
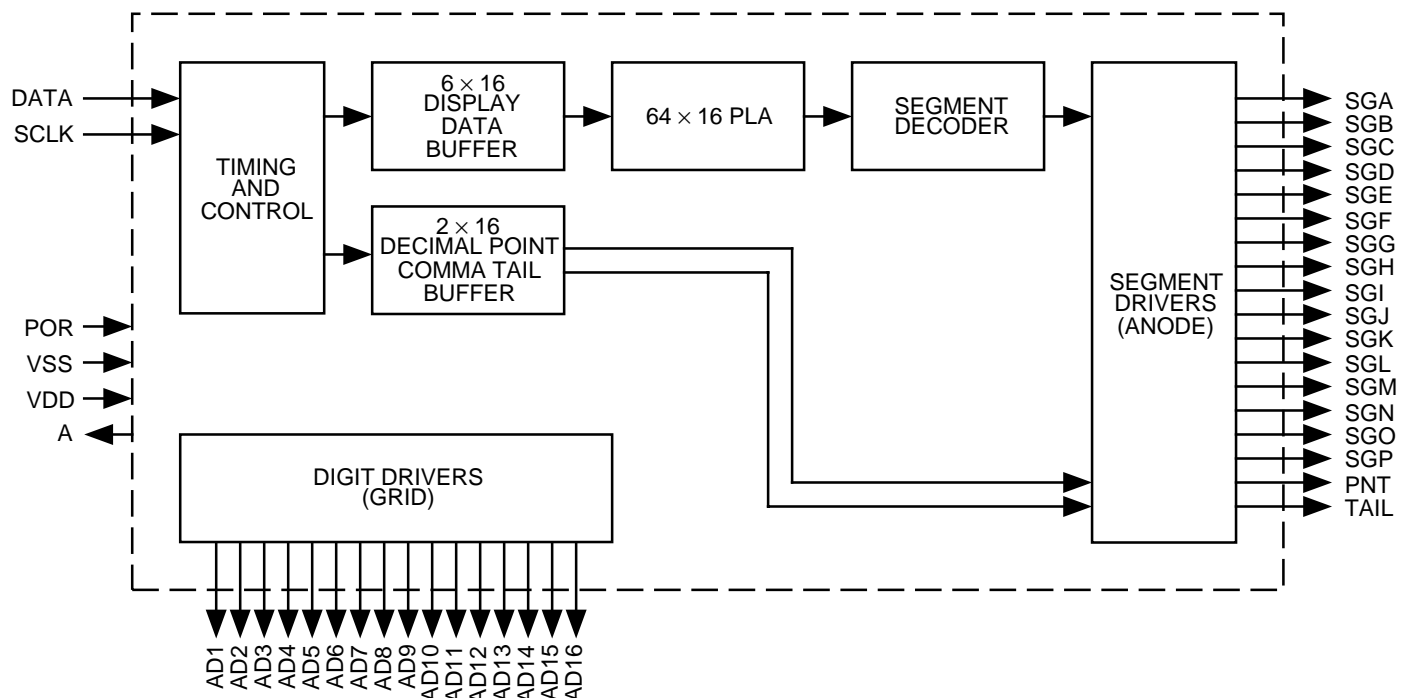
* Contact Micrel for more information.