MIC10955

V. F. Segmented Display Controller/Driver

Summary Information*

General Description

The MIC10955 Segmented Display/Driver is a MOS/LSI device capable of directly driving both the grids and anodes of multiplexed vacuum-fluorescent segmented displays. All timing circuits (including a clock generator) required to control the display drivers are contained within the device. The MIC10955 can drive segmented displays with 8 or 16 grids (characters) and 8, 16, or 24 anodes (segments). A serial interface allows for a host microprocessor to transmit commands and display data to the MIC10955 directly.

A 128 × 16-bit PLA provides coding for both 16-segment and 14-segment alphanumeric ASCII code character sets (all caps only). The PLA is divided into lower 64 and upper 64 code sets. Only one set can be selected at a time. In lower set mode the 16-segment display characters are selected. In upper set mode the 14-segment display characters are selected. The PLA can also be bypassed so that data words from the host microprocessor are loaded directly into segment drivers without decoding by the PLA. This mode is especially useful for creating special display patterns such as bar graph displays. Bypass mode is limited to eight drivers per data word.

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Features

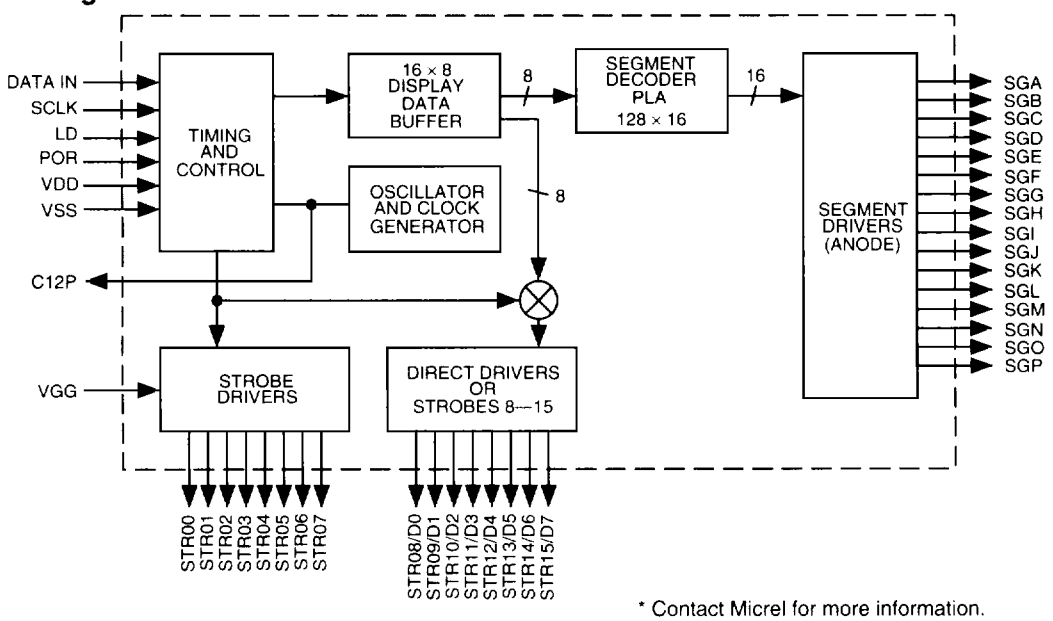
- 8 or 16-character display driver
- 8, 16, or 24-segment drivers
- Average data rate 66kHz
- Single character burst rate 500kHz
- Direct digit drive of 20mA for up to 40V or 50V vacuum fluorescent serial displays
- 128 × 16-bit PLA provides 16 or 14-segment alphanumeric characters set
- Internal clock generator circuit
- Serial host interface
- PLA bypass mode
- 40-pin DIP

Ordering Information

Part Number	Drive	Temp. Range	Package
MIC10955P-40/ MIC10955P-50†	50V	0°C to +70°C	40-pin P-DIP
MIC10955PE-40/ MIC10955PE-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.

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