

Delphi Reconfigurable Character Generator

▶ Description

The Delphi Reconfigurable Character Generator (RCG) is a custom IC which is capable of driving an LCD display at 1/14 duty, 1/5 bias, to a maximum of 10V. The IC contains 96 late-programmable ROM and 32 RAM alpha-graphic characters which can be selected for message display. The serial interface allows users to set contrast, read the temperature of the chip, control backlighting for the display, and define the message to display. The IC is designed to be wirebonded to a custom PCB and placed in a module containing the LCD glass and backlights.

▶ Features

- Serial microcontroller interface
- Row translation RAM to accommodate a number of different LCD configurations
- Width RAM to allow display of characters from 1 to 6 pixels wide
- Voltage multiplier circuit with 8-bit A/D converter
- 14 row and 90 column LCD drivers
- Temperature sensor with 8-bit A/D converter
- Internal 1.5 MHz oscillator and timing chain
- Pre-drivers for LED backlighting with PWM dimmer function

▶ Packaging

- 120 pin IC with 150 micron pad pitch and 100 micron pad openings
- Available as a bare die on a wafer

▶ Typical Applications

- Driver Information

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Recommended Operating Conditions			
Characteristic	Symbol	Value	Unit
Supply Voltage	Vdd	4.75 to 5.25	V
Operating Temp. Range, Ambient	Ta	-40 to 105	°C

Absolute Maximum Ratings			
Characteristic	Symbol	Value	Unit
Supply Voltage	Vdd	-0.6 to 6.0	V
Input Voltage	Vin	-0.6 to Vdd+0.6	V
Storage Temp. Range	Tstg	-40 to 150	°C
Max. Junction Temp.		150	°C