

# Configurable LED Display Module

## Features

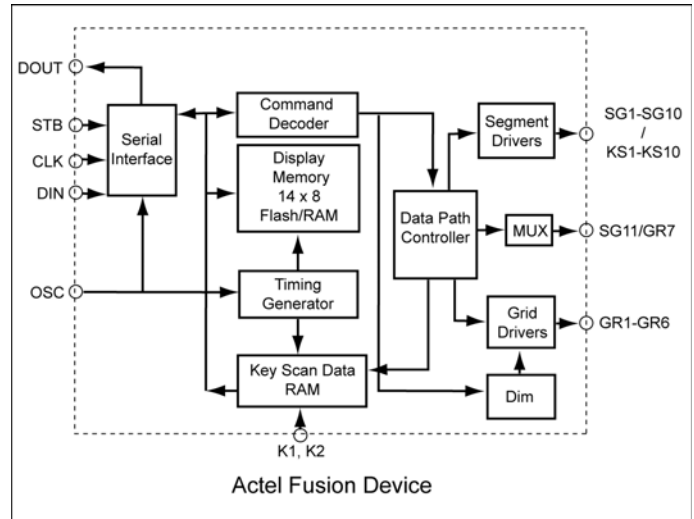
- Multiple Display Modes with “11 segments, 6 digits” to “10 segments, 7 digits”
- 8-Step Dimming Circuitry
- On-Chip Key Scanning for 10 x 2 matrix
- Simple Serial Interface with CLK, STB, and DIN/DOUT
- Common Cathode and Common Anode Support
- Single-Chip, Mixed-Signal, Secure Reprogrammable Fusion Flash FPGA Solution
- Low Power and Live at Power-Up
- Data Stored on Nonvolatile, On-Chip Flash Memory

## Applications

- Ideal Single-Chip Display Solution in the Consumer Space
- Front Panel Display for DVD Player and VCD Players
- Display for Boom-Box System and Home Appliances
- Programmable LED Display Signs and Markers

## Description

The above integrated solution can be made available for implementation using Actel next generation Fusion FPGA technology. The architecture can be expanded to multiple display modules, catering to a larger “row, column” matrix. Each display module can be self-sufficient and drive 14 bytes of RAM for one 11x6 or 10x7 display unit. If a larger display range is required, the IP can be reconfigurable to support additional modules as required. The display characters can be stored in the nonvolatile Flash memory. With the use of an Actel Fusion FPGA, the design can be implemented on a single chip. It combines the features of additional external devices such as analog to digital converters and clock generators, in addition to Flash memory, into a single FPGA.



## About Ishnatek

Ishnatek offers FPGA Design and hardware prototyping services. Ishnatek offers Design and Verification Services for embedded solutions. We have IPs such as 8031, RTC, Timers, Enhanced PWM, UART/SIO/IrDA, I2C, LED Driver and Key scan, Parallel Port, ECP/EPP, etc., which can be building blocks for your embedded controller solutions.

## About Actel

Actel Corporation is a supplier of innovative programmable logic solutions, including field-programmable gate arrays (FPGAs) based on Antifuse and Flash technologies, high-performance intellectual property (IP) cores, software development tools and design services targeted for the high-speed communications, application-specific integrated circuit (ASIC) replacement and radiation-tolerant markets.

The company is traded on the NASDAQ National Market under the symbol ACTL and is headquartered at 2061 Stierlin Court, Mountain View, CA, 94043-4655. Telephone: 888-992-2835.