Dual Channel Tone Generator

Features

Tone Generator Features Suitable for Audio Applications:

- Two-Channel PWM
- Automatic Tone Damping Control
- Warble Tone Output
- 8-Bit Bus Parallel Interface or 4-Wire Serial Interface
- Programmable Prescalers / Clock Dividers
- Tone Bank Using On-Chip Fusion Flash Memory
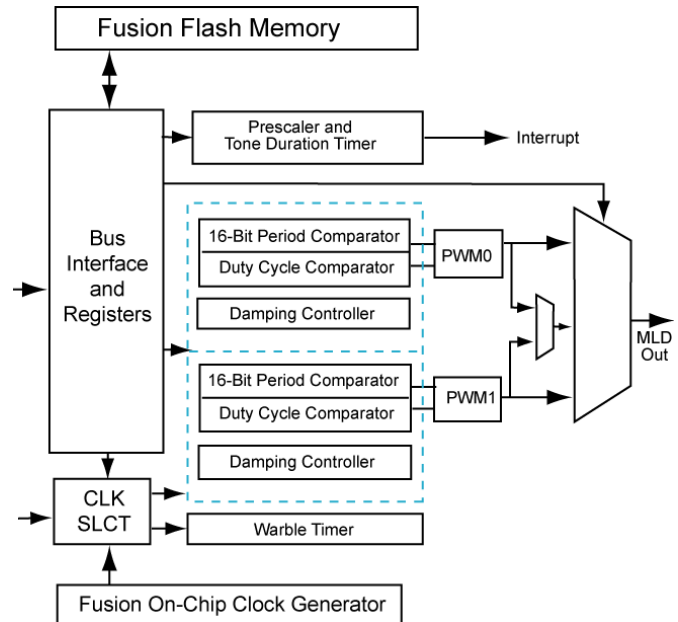- Single-Chip Solution with On-Chip Clock and Data Memory

Applications

- Audio Alarm System
- Motor or Fan Controls
- Power Supplies and FSK
- Home Appliances
- Many Other Industrial Applications

Description

The above integrated single-chip solution can be implemented using Actel Fusion™ technology. The tone generator can be used to generate musical scale tones, and the 16-bit period counters can be used to make the length of the musical scale. The programmable frequencies and on-chip PreScalers help achieve desired pulse width modulation for different applications. All parameters can be loaded from Flash memory during chip power-up. Tone damping and warble support can be used in audio signaling. Additional features such as tone banks or FSK can be integrated into the design, and data tables can be stored on the Fusion Flash Memory. These tables can be changed or reprogrammed on the fly by the user. The Fusion on-chip clock generator can be used to minimize components and board size.

Fusion FPGA devices offer unique power-saving features. The solution consumes low power, as it is built on a Flash-based FPGA architecture, in addition to utilizing the power-saving features of Fusion.

Actel Fusion Device

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.