LC7865E

SANYO SEMICONDUCTOR CORP



3159

CMOS LSI

Digital Signal Processor for Compact Disc Players

TENTATIVE

Ⓔ※3640

OVERVIEW

The LC7865E is a digital signal processor (DSP) and servocontroller for compact disc players. It performs most of the signal processing and decoding for replay of audio compact discs and other compact-disc formats, including compact disc video (CD-V), compact disc interactive (CD-I) and compact disc read-only memory (CD-ROM).

The LC7865E functions include bit detection, EFM (eight-to-fourteen modulation) demodulation, signal decoding and deinterleaving, error detection and correction, and disc motor servo control. The LC7865E interfaces directly to 16-bit stereo DACs, such as the LC7881 and LC7883, and features an EIAJ-format digital audio serial output and an output interface for non-audio applications such as CD-ROM.

The LC7865E is controlled by an external microprocessor through a serial interface. The microprocessor controls functions such as track counting, track jumping, laser focusing, disc motor operation and audio muting. The DSP has a DEMO input which controls the automatic operation mode used during unit calibration to produce audio output without microprocessor intervention.

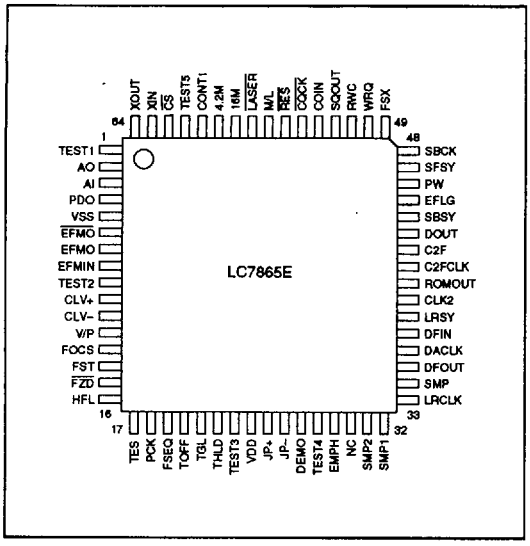
The LC7865E includes on-chip digital filters to improve sound quality, reduce the external component count and lower the cost of compact disc players.

The LC7865E operates from a 5 V supply and is available in 64-pin QIPs.

FEATURES

- Disc motor servocontroller
- Laser focusing and tracking servocontrollers
- Track count and track jump functions
- Two-times oversampling digital output filters
- 16-bit stereo DAC serial interface
- Table of contents (TOC) information can be stored on an on-chip RAM and recalled on request by the microprocessor
- CD-ROM serial interface
- EIAJ-format digital audio serial interface
- Subcode bits and Q subcode outputs
- Error detection and correction
- Signal interpolation or previous-value hold if error correction fails
- ±4 frames jitter tolerance
- Single crystal for reference clock and all timing signals
- DEMO mode for automatic operation
- Supports double-speed dubbing
- 5 V supply
- 64-pin QIP

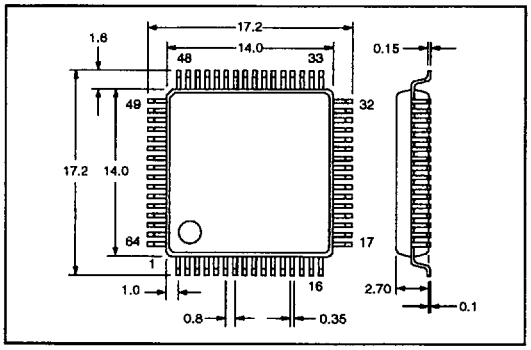
PINOUT



PACKAGE DIMENSIONS

Unit: mm

3159-QIP64E



☆ The rest is omitted. For further details, refer to the separate catalog of the LC7865E.

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