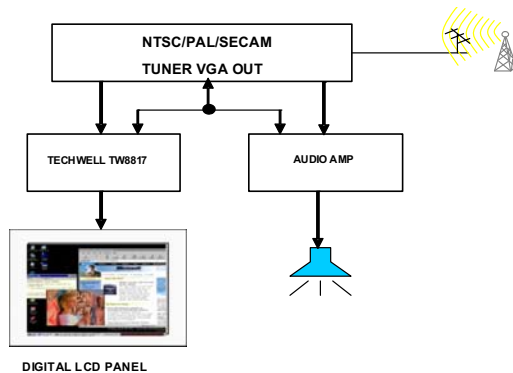


TW8817

Digital LCD Panel Processor with built-in MCU, NTSC/PAL/SECAM Decoder and TCON

FN7763
Rev.0.00
December 6, 2010



Applications

- Mobil LCD TVs
- Rear seat entertainment
- Portable DVD, PMP and HMD (Head Mount Display)

Features

The TW8817 is a low cost high quality TFT panel controller with embedded NTSC/PAL/SECAM TV decoder. It incorporates all the features required to create multi-purpose low cost LCD TV systems in a single package. It contains all the circuits required to adapt standard NTSC/PAL/SECAM analog TV input signals for display on various TFT LCD panel types. An integrated timing controller allows direct interface with digital LCD panels. Its versatile analog inputs allow CVBS, S-video, signal to be connected simultaneously.

Other features include: high quality adaptive 4H Comb Filter, 2D de-interlacer and panoramic scaler, and multi-window programmable OSD. It also includes image enhancement functions such as black and white stretch, 2D peaking, CTI, and favorite color enhancement to further improve picture quality. It also includes cost saving feature like CCFL and LED controller, charge pump booster and programmable panel offset control. In addition, TW8817 has built-in microcontroller with external SPI interface.

Analog Video Decoder

- NTSC (M, 4.34) and PAL (B, D, G, H, I, M, N, N combination), PAL (60), SECAM with automatic format detection
- Advanced synchronization processing for VCR trick play signal
- Two 10-bit ADCs and analog clamping circuit.
- Built-in analog anti-aliasing filter
- Fully programmable static gain or automatic gain control for the Y or CVBS channel
- Programmable white peak control for the Y or CVBS channel
- Software selectable analog inputs allows any of the following combinations:
 - "3 composite video
 - "1 S-Video
- 4-H adaptive comb filter Y/C separation
- PAL delay line for color phase error correction
- Digital PLL for both color and horizontal locking
- Programmable hue, brightness, saturation, contrast, sharpness, Gamma control, and noise suppression
- Automatic color control and color killer
- Detection of level of copy protection according to Macrovision standard

Built-in Micro-controller

- Support external SPI Interface
- Support I2C Master interface with GPIO
- Support Up to 4 MCU GPIO
- Support UART interface with GPIO
- Support IR or interrupt with GPIO

TFT Panel Support

- Supports a wide variety of Digital single pixel active matrix TFT panels up to WXGA(1280x768), 100MHz
- Supports 3, 4, 6 bits per pixel format

On Screen Display

- Built-in OSD controller with integrated character ROM and programmable RAM font.
- Multi-window OSD support with color pallet
- Support OSD overlay with alpha blending

Image Control

- Programmable hue, brightness, saturation, contrast
- Sharpness control with vertical peaking
- Programmable color transient improvement control
- Built-in de-interlacing engine
- Independent RGB gain and offset controls
- Panorama / Water-glass scaling
- Programmable Gamma correction tables
- Black/White Stretch
- Programmable favorite color enhancement

Power Management

- Supports Panel power sequencing.
- Supports DPMS for monitor power management.
- 1.8 / 3.3 V operation

Timing Controller (TCON)

- Support programmable interface signals for control

Column (source) driver / row (gate) driver

Miscellaneous

- Supports 2-wire serial bus interface
- Spread spectrum PLL
- CCFL controller
- LED controller
- Low-speed ADC for KEY scan
- 5V tolerant I/O
- Power-down mode
- Typical power consumption less than 350mW
- Single 27MHz crystal
- 80-pinTQFP package

© Copyright Intersil Americas LLC 2010. All Rights Reserved.

All trademarks and registered trademarks are the property of their respective owners.

For additional products, see www.intersil.com/en/products.html

Intersil products are manufactured, assembled and tested utilizing ISO9001 quality systems as noted in the quality certifications found at www.intersil.com/en/support/qualandreliability.html

Intersil products are sold by description only. Intersil may modify the circuit design and/or specifications of products at any time without notice, provided that such modification does not, in Intersil's sole judgment, affect the form, fit or function of the product. Accordingly, the reader is cautioned to verify that datasheets are current before placing orders. Information furnished by Intersil is believed to be accurate and reliable. However, no responsibility is assumed by Intersil or its subsidiaries for its use; nor for any infringements of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of Intersil or its subsidiaries.

For information regarding Intersil Corporation and its products, see www.intersil.com

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)
Email: org@lifeelectronics.ru