TW9910-LB2-GR Low Power NTSC/PAL/SECAM Video Decoder with VB HT SUSA
CODE:8542390000

Manufacturers	Renesas Technology Corp
Package/Case	LQFP-44
Product Type	Interface ICs
RoHS	
Lifecycle	

Images are for reference only

Please submit RFQ for TW9910-LB2-GR or Email to us: sales@ovaga.com We will contact you in 12 hours.   RFQ

General Description

The TW9910 is a low power NTSC/PAL/SECAM video decoder chip that is designed for portable applications. It consumes less than 100mW in typical composite input application. The available power down mode further reduces the power consumption. It uses the 1.8V for both analog and digital supply voltage and 3.3V for I/O power. A single 27MHz crystal is all that needed to decode all analog video standards.The video decoder decodes the base-band analog CVBS or S-video signals into digital 8 or 16-bit 4:2:2 YCbCr for output. It consists of analog front-end with input source selection, variable gain amplifier and analog-to-digital converters, Y/C separation circuit, multi-standard color decoder (PAL BGHI, PAL M, PAL N, combination PAL N, NTSC M, NTSC 4.43 and SECAM) and synchronization circuitry. The Y/C separation is done with high quality adaptive 4H comb filter for reduced cross color and cross luminance. The advanced synchronization processing circuitry can produce stable pictures for non-standard signal as well as weak signal. A video scaler is provided to arbitrarily scale down the output video in a packed format. The output of the decoder is line-locked and formatted to the ITU-R 656 output with embedded sync.The TW9910 also includes circuits to detect and process vertical blanking interval (VBI) signal. It slices and process VBI data for output through video bus. Some information can also be alternatively retrieved through host interface.A 2-wire serial host interface is used to simplify system integration. All the functions can be controlled through this interface.

Features

NTSC (M, 4.43) and PAL (B, D, G, H, I, M, N, N combination), PAL (60), SECAM support with automatic format detection

Software selectable analog inputs allow any of the following combinations, e.g. 4 CVBS or (3 CVBS and 1 Y/C).

Built-in analog anti-alias filter

Two 10-bit ADCs and analog clamping circuit

Fully programmable static gain or automatic gain control for the Y channel

Programmable white peak control for the Y channel

4-H adaptive comb filter Y/C separation

PAL delay line for color phase error correction

Image enhancement with peaking and CTI.

Digital sub-carrier PLL for accurate color decoding

Digital Horizontal PLL for synchronization processing and pixel sampling

Advanced synchronization processing and sync detection for handling non-standard and weak signal

Programmable hue, brightness, saturation, contrast, and sharpness

Automatic color control and color killer

Chroma IF compensation

ITU-R 601 or ITU-R 656 compatible YCbCr(4:2:2) output format

VBI slicer supporting industrial standard data services

VBI data pass through, raw ADC data output

High quality horizontal filtered scaling with arbitrary scale down ratio

Phase accuracy better than 1/32 pixel

Programmable output cropping

Two wire MPU serial bus interface

Support Real Time Control interface

Power save and Power down mode

Typical power consumption <100mW

Single 27MHz crystal for all standards

Supports 24.54MHz and 29.5MHz crystal for high resolution square pixel format decoding

3.3V tolerant I/O

1.8V/3.3 V power supply
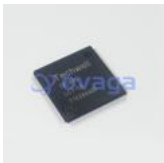
44 pin LQFP, 48 pin QFN package

Related Products
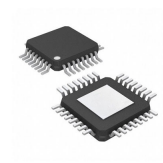

TW2868-LA2-CR

Renesas Technology Corp

TQFP128

TW9910-NB2-GR

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48-QFN
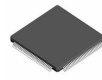

TW2866-LC1-CR

Renesas Technology Corp

QFP-128

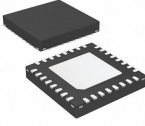

TW9900-TA1-GR

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QFP-32

TW9900-NA1-GR

Renesas Technology Corp

QFN32

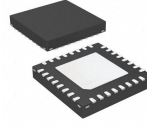**TW2867-QLC1-CR**

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QFP-128

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