

DESCRIPTION

VXIS VX1930 VGA to Video encoder is a stand-alone integrated circuit that converts analog VGA inputs directly into 525-line (M) NTSC or 625-line (B, D, G, H, I, M, N, Nc) PAL composite video and S-video outputs.

VX1930 integrates a digital NTSC / PAL encoder with 8-bits ADC and 10-bits DAC interfaces, a flick free vertical filter and low-jitter phase-locked loop to create outstanding quality video with 24-bits-per-pixel processing throughout the entire signal path.

A Secondary video interface with ITU-656 supplies MIX mode and OVERWRITE mode to merge VGA and video images for CHROMA KEY applications.

A high level of integration and performance makes the chip ideal for a variety of stand-alone and system-level integration solutions, including notebook computers and PC add-on graphics cards.

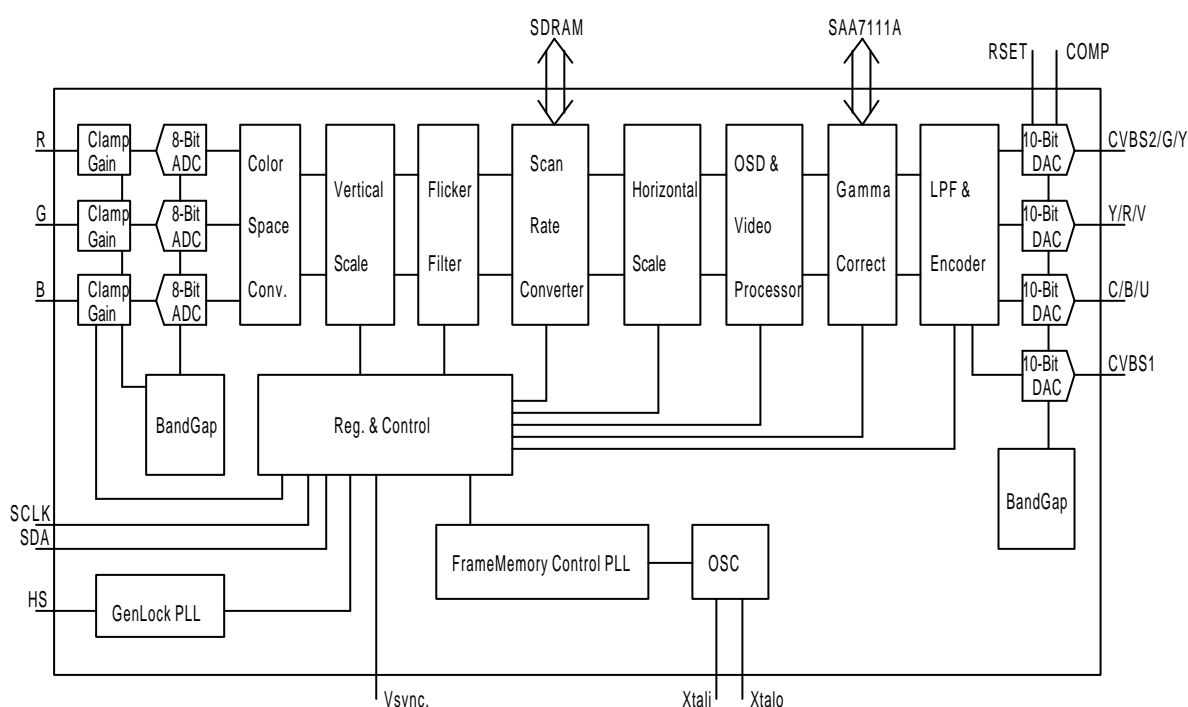
APPLICATION

- Advanced VGA to video scan converter
- Internet appliances / TV
- Set-top box
- Computer compatible TV
- DVD movie playback

PACKAGE

- 128-pin PQFP

FUNCTIONAL BLOCK DIAGRAM



FEATURES

- Three 8-bits ADC for R.G.B. sampling rate up to 50 MHz. Clamping ckt. Included.
- Four 10-bits DAC for CVBS2 / G / Y, Y / R / V, C / B / U and CVBS1. Transfer rate up to 27 MHz.
- Advanced adjustable digital vertical filter.
- Support SDRAM for Frame-Memory.
- Support linear scale down function for vertical and horizontal.
- Support 720 x 400 (TEXT) to 2048 x 1536 and Mac (640 x 480, 832 x 624).
- Genlock PLL included.
- ZOOM x 2 and Pan feature.
- Secondary video interface with ITU-656 supplied by SAA7111A, SAA7113H or VXIS VX1127 video decoder.
 - MIX mode (transparent) and weight adjustable for fade-in / fade-out.
 - OVERWRITE mode (2nd video overwrite PC picture when PC picture match luma / chroma key).
- Internal generate COLOR BAR test patterns.
- Only one Crystal (27 MHz) required.
- Programmable sharpness, brightness, contrast, saturation and hue.
- Automatically synchronous polarity detection.
- Digital Color Space Convert.
- 64-step analog input gain control.
- Support program mode when VGA exceed internal default mode.
- Freeze mode can be supported.
- I2C like serial interface.
- Simultaneous composite / S-video output.
- Selectable TV output format, composite, S-video, YUV or RGB for SCART.
- Power ON / OFF, LEFT / RIGHT / UP / DOWN, ZOOM, OSDEN and MENU are controlled by pins.
- Support VESA DPMS power down mode to conserve power.
- Build in OSD.
- CMOS technology in 128-pin PQFP.
- 3.3V supply.