

## Video Scan Doubler

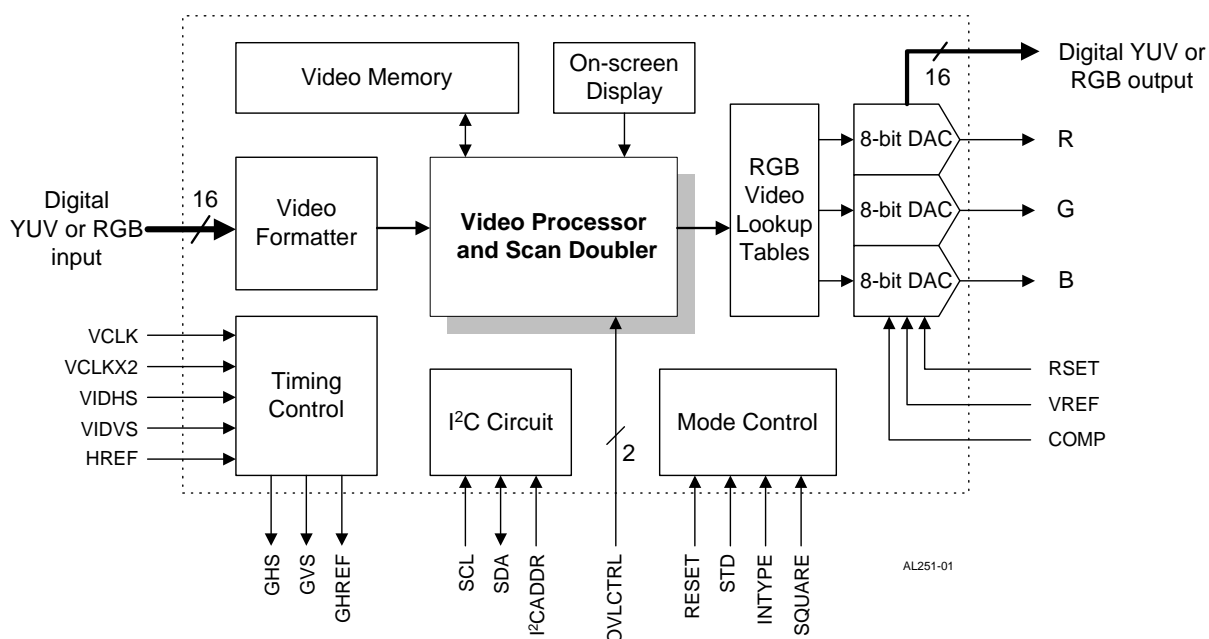
### Applications

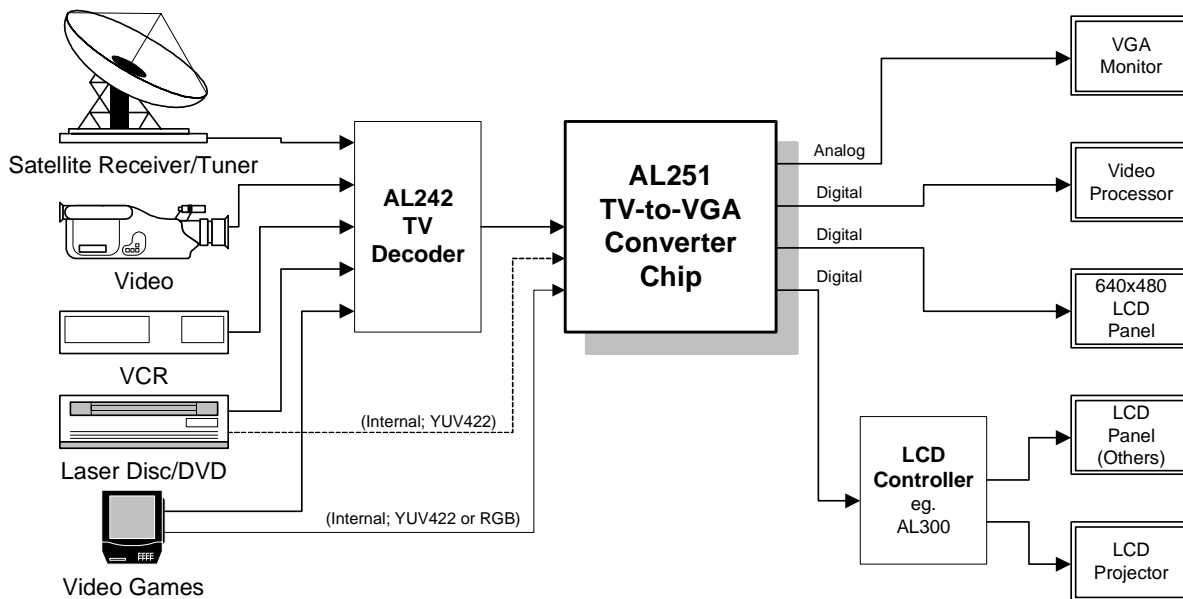
- LCD Monitor w/TV Input
- LCD Projector
- Video Editing Equipment

### Description

The AL251 Video Scan Doubler (De-Interlacer) is a video conversion chip for LCD VGA display or video editing applications. It converts interlaced NTSC or PAL, ITU-R BT 601 (CCIR601) or square pixel, YUV422 or RGB565 digital data into non-interlaced analog RGB signals for direct connection to a computer monitor or progressive scan TV, or digital RGB565 /YUV422 output for LCD monitors, projectors, or other applications.

- Convert interlaced digital YUV/RGB (NTSC/PAL) into non-interlaced YUV/RGB format for LCD monitors or video processing
- Highly integrated design with built-in DAC, SRAM, OSD and LUT
- Built-in on-screen-display with programmable bitmap
- Advanced digital line interpolation with no tearing or jagged edge artifacts
- Reduced interlace flicker
- Auto NTSC/PAL detect
- Digital video input of square pixel, ITU-R BT 601 (CCIR 601), or user-defined format
- Analog/digital non-interlaced RGB (VGA) output (Scan Doubled or De-interlaced) or digital YUV output
- I<sup>2</sup>C programming interface
- Internal RGB video lookup table (LUT) to provide gamma correction
- Overlay support for title making and complex on-screen display
- Self-initialization without software (Plug & Play)
- 3.3 or 5 volt support





**AL251 Typical Applications**

AL251-02

By using I<sup>2</sup>C interface control, the AL251 can also be programmed to co-ordinate with various input resolutions, adjust screen positioning and crop video noise from around the original input video boundary.

The internal RGB video lookup tables (LUT), which are controlled via the I<sup>2</sup>C interface, can provide gamma correction for calibrating the color accuracy of different types of CRT's and improving the contrast level to display more vivid pictures.

A built-in on-screen-display (OSD) with programmable bitmap RAM allows custom design icons and on-screen control panels.

Overlay function is supported to create titling or on-screen-display menus for video adjustment.

The AverLogic proprietary digital signal processing technology creates a highly stable video image without tearing effects or jagged edges. The output picture is smoother and has less flicker than the original input signal/picture.

Please note that some features of the AL251 analog output may not apply to the digital outputs. The following table summarizes them:

Feature	Analog RGB	Digital RGB	Digital YUV
Border color	V		
OSD/bitmap	V	V	
Overlay	V	V	
LUT	V		

For more information about the AL251 or the other products from AverLogic, please contact your local authorized representatives, visit our website, or contact us directly.

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