

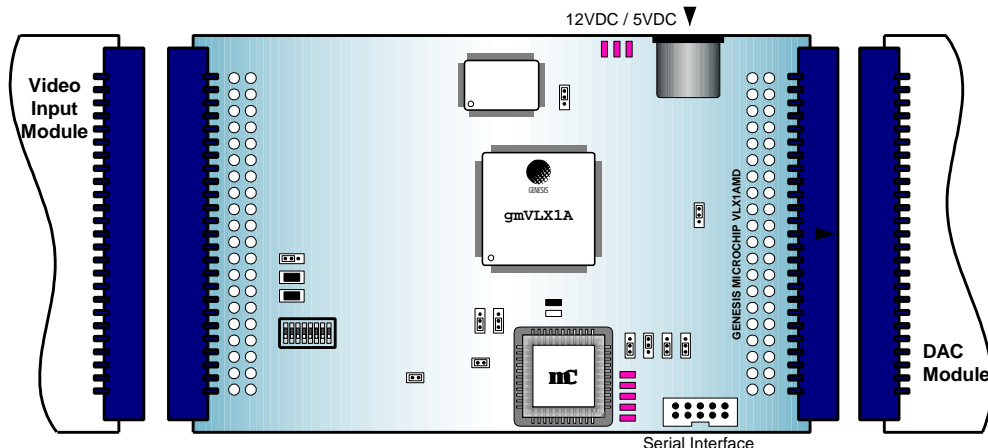


Product Brief

gmVLX1A Chip Features

- Genesis proprietary Vertical/Temporal (VT) de-interlacing filter
- Adaptive Film Mode
- Advanced Image Scaling engine: scale up and down for video-in-a-window PC/TV applications
- Input cropping
- User-selectable sharpening/anti-aliasing filter combinations
- Gamma correction via programmable color lookup tables (VLUTs)
- Built-in display controller and color space converter (CSC)
- Brightness, contrast, black level, saturation and hue color controls
- Seamless interface to Philips, Samsung and ITT industry-standard video decoders.
- Up to 768 active pixels/line input
- SGRAM / SDRAM built-in memory controller
- Inputs: 8/16-bit YUV and 24-bit RGB interlaced (30 MHz maximum)
- Outputs: 8-bit time-multiplexed 4:2:2 YUV, 16-bit 4:2:2 YUV, 24/30-bit 4:4:4 YUV, 24/30-bit RGB
- I²C, 3-wire and 4-wire Host Interface

VLX1ARD BASIC LAYOUT



gmVLX1A-based Scaler De-Interlacer

Reference Design Description

The VLX1ARD provides a simple and compact means of demonstrating the features of the Genesis gmVLX1A; a highly integrated IC featuring state-of-the-art Vertical/Temporal (VT) video de-interlacing and AFM for 3:2 pull-down film sources, Vertical and Horizontal Shrink and Zoom Advanced Image Scaling.

The VLX1ARD Reference Design consists of the VLX1AMD module (17.5cm x 10cm), a VIM-S Video Decoder input module, and a 10-bit DAC10M module for output to a progressive scan CRT (or PDP-M module for output to a Plasma Display Panel). All modules in the system are controlled by a microcontroller on the main VLX1AMD module. To allow access to device registers, a serial interface connector and G-Probe™ software is provided.

The VLX1AMD module is a pin-compatible replacement for the VLD8RD main module.

Applications

- DVD players
- PC video
- Progressive scan flat-panel plasma displays
- Projection systems where video data is required to be de-interlaced before being projected onto a large display surface
- Video workstations and editors where video is de-interlaced for display on progressive scan monitors

Genesis Microchip