GENESIS MICROCHIP

Product Brief gmAFMC

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Adaptive Film Mode Controller

DESCRIPTION

The Genesis Microchip Adaptive Film Mode Controller (gmAFMC) chip and gmVLX1A-X IC combine to form the gmVLX1A-X / gmAFMC Chipset; a low-cost, highly integrated solution suitable for progressive television, DVD and Home Theater applications. This feature-packed pair offers Genesis gmVLX1A-X state-of-the-art Vertical / Temporal (VT) video de-interlacing, combined with Advanced Image Scaling with vertical / horizontal scale up and scale down features.

The gmVLX1A-X and gmAFMC chip set also offers gamma correction via programmable VLUTs, sixteen sharpening / anti-aliasing filter combinations, on-board color space conversion, as well as contrast, brightness, saturation, and hue color controls.

The chipset offers real-time control and switching between Vertical/Temporal (VT), Static Mesh (SM), and Adaptive Film (AFM) modes under the control of five user-set parameters for each mode. Mode switching is under user control.

The gmVLX1A-X AFM chipset supports 2-wire I^2C, 3-wire and 4-wire compatible serial host interface communication, plus a seamless interface to low-cost SGRAM memory and video decoders. An on-chip display controller allows the gmVLX1A-X output to directly drive DACs or flat panel digital displays.

FEATURES

- Adaptive Film Mode (AFM) ensures optimal de-interlacing for 3:2 pull-down (film) sources
- Provides real-time switching and detection of Static Mesh, Vertical/Temporal and AFM sequences
- Dramatic reduction in gmVLX1A-X source code development time
- Full control over AFM mode switching parameters via 4-wire serial communication

PACKAGE

- 44-pin PLCC

APPLICATIONS

- Progressive Television
- Progressive DVD
- Home Theater
- PC/TV or PC/Theater, DVD
- Plasma panels / PDP TV
- Projection Systems
- Scan doublers/quadruplers/converters

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System Design Example