Marvell 88DE2710 Digital Video Format Converter
Powered by Marvell's Qdeo Video Processing

▶ PRODUCT OVERVIEW

The Marvell® 88DE2710 dual-channel digital video format converter establishes a new standard of video quality. Featuring Marvell Qdeo™ video processing, the 88DE2710 converts any high definition (HD) or standard definition (SD) digital video input or PC graphics input into any standard video format, including full HD resolution at 1080p.

The 88DE2710 features a complete suite of advanced video processing technologies, delivering quiet and natural video free of noise and artifacts, for a truly immersive viewing experience. An advanced video pipeline delivers the highest quality 1080p image without compromise. In addition, a secondary pipeline supports scaling for picture-in-picture and thumbnail functions.

▶ INPUTS

- Video resolutions up to 1080p60
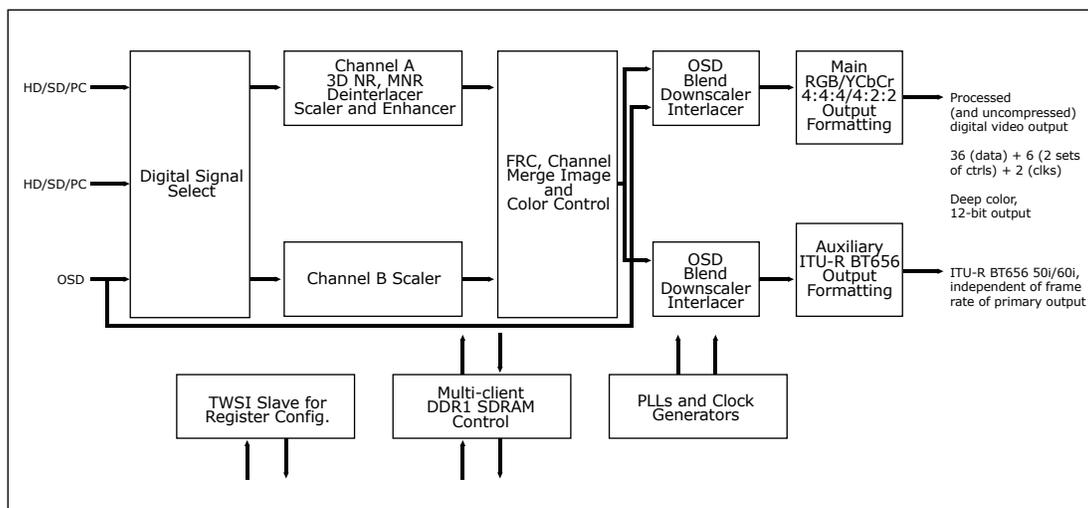- Graphics resolutions up to 1600×1200 at 60Hz

▶ OUTPUTS

- Configurable primary HD or SD output port
  - 12-bit per channel YCbCr 4:2:2 for "deep color" support, or
  - 10-bit per channel YCbCr/RGB 4:4:4
- Secondary SD stream
  - ITU-R BT656 50i/60i, independent of frame rate of primary output

▶ APPLICATIONS

The 88DE2710 dual-channel digital video format converter, utilizing Marvell's Qdeo video processing, renders the highest quality 1080p images on a variety of devices:

- Blu-ray/DVD players and recorders
- Portable media player DTV docks
- Digital media adapters
- High-definition set-top boxes
- Video processor boxes
- A/V receivers
- Digital TVs

▶ KEY FEATURES AND BENEFITS

FEATURES	BENEFITS
• Advanced per-pixel, motion-adaptive, edge-adaptive 3D de-interlacing for HD and SD video, with support for arbitrary film cadences	• Removes "jaggies" and feathering for exceptionally smooth and clear images
• Advanced per-pixel, motion-adaptive, spatio-temporal noise reduction for HD and SD video	• Virtually eliminates video noise inherent in the digital video for a clean, "quiet" picture without distractions
• Content-adaptive block and mosquito noise reduction for HD and SD video	• Reduces compression artifacts introduced by video decoders
• Dual scaler pipelines	• Enables picture-in-picture and thumbnail functions
• Marvell TwinD™ architecture	• Supports an auxiliary SD output, allowing for simultaneous HD and SD output streams
• Adaptive Contrast Enhancement (ACE)	• Enhances local detail in every frame by increasing contrast in darker portions of the image
• Intelligent Color Remapping (ICR)	• Generates richer and more vivid images without clipping or hue shifts

THE MARVELL ADVANTAGE: Marvell chipsets come with complete reference designs which include board layout designs, software, manufacturing diagnostic tools, documentation, and other items to assist customers with product evaluation and production. Marvell's worldwide field application engineers collaborate closely with end customers to develop and deliver new leading-edge products for quick time-to-market. Marvell utilizes world-leading semiconductor foundry and packaging services to reliably deliver high-volume and low-cost total solutions.

ABOUT MARVELL: Marvell is a leader in storage, communications, and consumer silicon solutions. Marvell's diverse product portfolio includes switching, transceiver, communications controller, processor, wireless, power management, and storage solutions that power the entire communications infrastructure, including enterprise, metro, home, storage, and digital entertainment solutions. For more information, visit our Web site at www.marvell.com.