Datasheet

SGI™ DMediaPro™ DMI

Silicon Graphics Zx10™ VE Visual Workstation with DMediaPro DMI

Features

- Standard-definition (SD) real-time video input and output for Silicon Graphics Zx10 VE visual workstation
- Integration with Wildcat 4210 VIO provides real-time graphics-to-video output (GVO)
- Support for NTSC and PAL timings
- 4:2:2 YCrCb or RGB video sampling with 8 or 10 bits per component
- Support for full sample rate alpha channel (8 or 10 bits)
- High-precision colorspace conversion
- Compatible with OpenML

Digital Media Workstation Solutions

The Silicon Graphics Zx10 VE visual workstation with DMediaPro DMI provides a media-rich solution, including SD video I/O plus GVO. Silicon Graphics Zx10 with DMI is the only integrated Windows® OS-based solution offering groundbreaking price/performance capabilities for virtual sets, virtual characters, and real-time graphics applications.

Uncompromised Video Flexibility

Dual serial digital video inputs enable the capture and monitoring of two independent uncompressed SD video streams or a dual-link signal with video plus alpha. Silicon Graphics Zx10 with DMI supports YCrCbA and RGBA real-time colorspace conversion, necessary for live preview monitoring in editing and compositing applications. The serial digital video output supports live and stored video, including the full sample rate alpha channel required in broadcasting applications.

Powerful Graphics-to-Video Output

Silicon Graphics Zx10 with DMI provides high-performance GVO capability through a tight integration with the Wildcat 4210 VIO graphics system. The 4210 VIO's SuperScene anti-aliasing delivers the true multisampled scene-based anti-aliasing required for broadcast applications. 4210 VIO also supports the high-performance hardware overlay planes needed for interactive paint and compositing applications.

Synchronization between the graphics and video systems provides high-quality image scaling and frame-rate synchronization and ensures there are no video artifacts such as dropped or repeated frames. User-selectable graphics cursor bypass allows graphics output without the danger of the mouse pointer or other user interface elements appearing in the video.

Colorspace Conversion and Processing

Patent-pending chrominance dithering logic enables integrated high-precision colorspace conversion. This provides the flexibility to capture video in one format and monitor or manipulate it in another format while maintaining high quality.

Accurate image matching is simplified with on-board adjustable gamma correction for video images and computer-generated graphics.

Professional Solutions

Silicon Graphics Zx10 with DMI is sold as an integrated media-rich workstation solution in either a rack-mount or an ultratower configuration. This production-ready system enables a high-quality video I/O solution with unique GVO capabilities that power real-time broadcast applications.

SGI DMediaPro DMI
Technical Specifications

Silicon Graphics Zx10 VE System with DMediaPro DMI Configuration

- 2 1 GHz Pentium® III processors
- 512MB memory double-wide PC133 SDRAM
- 18.2GB 10,000 RPM, Ultra160 SCSI drive
- Wildcat 4210 VIO graphics
- Ultratower or 5U rack-mount chassis
- DMediaPro DMI
- Windows NT® or Windows 2000

Input Format and Connectors

- 2 SMPTE 259M BNC 75 ohm terminated, unbalanced

Output Format and Connectors

- 2 SMPTE 259M BNC 75 ohm terminated, unbalanced

Genlock

- External house reference signal, input video signal, or internal reference (free-running)

Real-Time Features

- High-quality colorspace conversion on input and output
- Two video inputs or video plus alpha I/O
- Dual independent video processing pipelines on input video
- Gamma correction and removal
- Color correction
- Nonlinear color effects
- Compatible with OpenML™ V. 1.0

Colorspace Support

- ITU-R BT.601

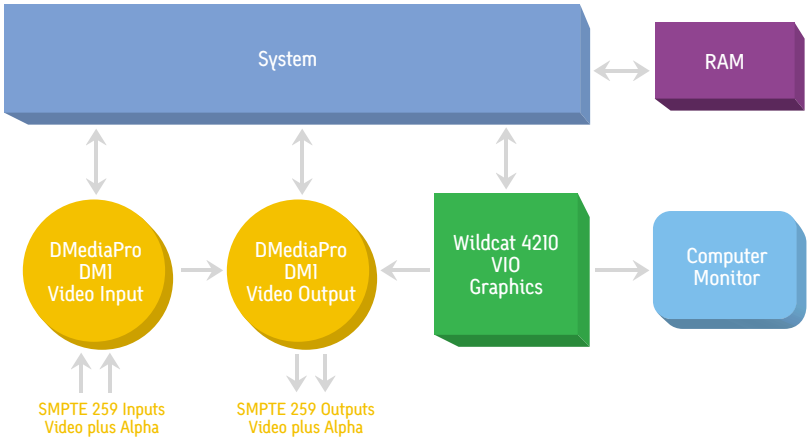
Regulatory

- FCC Class A

Digital Video Signal Formats

Format	Resolution	Number of Inputs	Number of Outputs	Timing
4:2:2—YCrCb	8- or 10-bit	2	1	PAL/NTSC
4:2:2—RGB	8- or 10-bit	2	1	PAL/NTSC
4:2:2:4—YCrCbA	8- or 10-bit	1 (video plus alpha)	1 (video plus alpha)	PAL/NTSC
4:2:2:4—RGBA	8- or 10-bit	1 (video plus alpha)	1 (video plus alpha)	PAL/NTSC

DMediaPro DMI Block Diagram



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