Datasheet

SGI® DMediaPro™ DM3

High-Definition and Standard-Definition Video I/O Option

Features

- High-definition (HD) and standard-definition (SD) uncompressed real-time video input and output for Silicon Graphics® Tezro™ visual workstation, SGI® Onyx® 350 InfinitePerformance™ and InfiniteReality®, SGI® Onyx4™ UltimateVision™, the SGI® Onyx® 3000 series, and SGI Origin® 3000 series
- Support for all major HD and SD video formats
- 4:2:2 or 4:4:4 YCrCb video sampling with 8- or 10-bits per component
- 4:4:4:4 RGBA video sampling with 8- or 10-bits per RGB component
- Support for full sample rate alpha channel (8- or 10-bits)
- Patented real-time colorspace conversion
- 16x9 or 4x3 aspect ratio
- Video BreakOut Box (VBOB) provides SDI and genlock connections
- Supports OpenML® programming environment

Flexible Professional Digital Media

DMediaPro DM3 offers the highest-quality multiresolution and multi-format real-time video input and output for broadcast and videopost-production. SGI® visual workstations combined with DMediaPro DM3 are the enabling platform for industry-leading editing, compositing, mastering, and on-air graphics applications. DMediaPro DM3 offers two independent input and two independent output channels that can be combined for a dual-link 4:4:4:4 signal with alpha. HD support includes major film and video formats, including 10-bit RGBA, 1080p, 1080i, and 720p, while SD support includes PAL and NTSC timings.

Highest Quality Digital Video

The introduction of DMediaPro DM3 on the desktop with the Silicon Graphics Tezro visual workstation means that SGI has once again raised the bar for digital video with a new level of quality, versatility, and performance. The new high-bandwidth architecture and high-performance processing capability of Tezro™ visual workstation plus the HD capabilities of DM3 set a new standard for desktop solutions. Combined with DMediaPro™ DM5 graphics-to-video out option, it creates an unparalleled platform for visual effects and virtual sets.

For highest performance, DMediaPro DM3 takes advantage of the scalable computing and high-bandwidth capabilities of Onyx4 UltimateVision, Onyx 350 and the SGI® 3000 series.

Designed for Flexibility with Multiple Standards and Formats

With DM3, multiple video streams can be routed directly to and from main memory in real-time. The patented user-selectable real-time high-quality color space conversion during input and output supports capture and playout of RGB or YCrCb to/from disk arrays.

DM3 provides all of the functionality you would expect in a video solution. A single XIO™ card and Video BreakOut Box (VBOB) deliver uncompressed HD and SD formats. The VBOB provides industry-standard BNC connections to external video devices via serial digital interfaces for video I/O and analog SD and HD connections for genlocking to house sync.

DMediaPro DM3 option supports 8- or 10-bit YCrCb and YcrCbA and 8- or 10-bit RGB and RGBA video sampling.

Advanced Solutions

Advanced digital media has never been so accessible, versatile and powerful. Whether you are doing video editing, compositing, broadcast graphics, or visual effects, DMediaProDM3 enhanced systems provide breakthrough capabilities and productivity that is unmatched in the industry.

SGI DMediaPro DM3
Technical Specifications

Compatibility
- SGI Origin 3000 series, SGI® Origin® 2000 series
- Silicon Graphics Onyx4 UltimateVision
- SGI Onyx 3000 series, and Silicon Graphics® Onyx2®, SGI Onyx 350 with InfiniteReality4™ and InfinitePerformance graphics:
  – High-definition graphics-to-video out with HD GVO
- Silicon Graphics Tezro visual workstations with VPro™ V12 graphics:
  – DMediaPro DM5
- IRIX® 6.5.11 or greater; IRIX 6.5.21 with Onyx4, Onyx 350, and Tezro

Input Format and Connectors
- 2 SMPTE 259M BNC 75 ohm terminated, unbalanced
- 2 SMPTE 292M BNC 75 ohm terminated, unbalanced

Output Format and Connectors
- 2 SMPTE 259M BNC 75 ohm terminated, unbalanced—dual redundant connections
- 2 SMPTE 292M BNC 75 ohm terminated, unbalanced—dual redundant connections

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

Colorspace Support
- SMPTE 240M
- ITU-R BT.601
- ITU-R BT.709

Real-Time Features
- High-quality color space conversion on input and output
- Dual-link video or video plus alpha I/O
- Compatible with OpenML™ V. 1.0

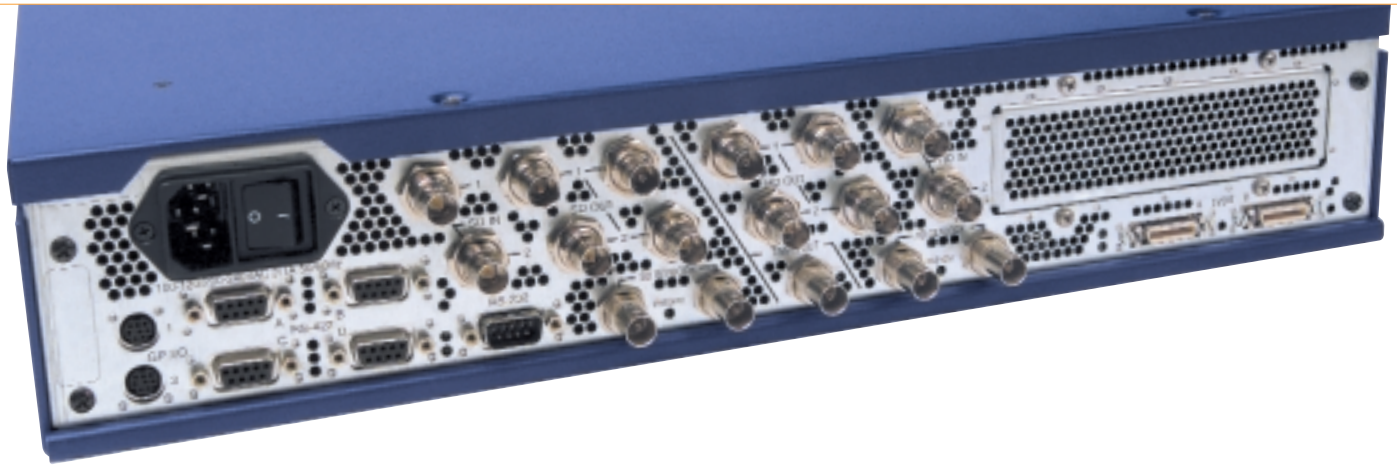
Regulatory
- FCC Class A

Digital Video Sampling

Format	
4:2:2—YCrCb	8- or 10-bit
4:4:4—RGB	8- or 10-bit
4:2:2:4—YCrCbA	10-bit video with 2-bit alpha
4:4:4:4—RGBA	8-bit video with alpha or 10-bit video with 2-bit alpha

Digital Video Formats

Format	Image Size	Scanning	Frame Rate	Timing
NTSC	720x486	Interlace	29.97 Hz	PAL/NTSC
PAL	720x576	Interlace	25 Hz	PAL/NTSC
720p	1280x720	Progressive	59.94 and 60 Hz	
1080i	1920x1080	Interlace	25, 29.97, and 30 Hz	
1080p	1920x1080	Progressive	23.976, 24, and 25 Hz	
1080PsF	1920x1080	Progressive	23.976, 24, and 25 PsF	



Corporate Office
1600 Amphitheatre Pkwy.
Mountain View, CA 94043
(650) 960-1980
www.sgi.com

North America 1(800) 800-7441
Latin America (52) 5267-1387
Europe (44) 118.925.75.00
Japan (81) 3.5488.1811
Asia Pacific (65) 6771.0290

3033 (07/18/03) JI4264