

## HARDWARE

- Uncompressed/compressed video + alpha channel
- 4:2:2:4 sampling with full alpha channel support
- Dedicated graphics channel for titling/logos
- Integrated video I/O (composite, component, Y/C)
- Integrated stereo audio I/O (balanced/unbalanced)
- Integrated Ultra wide SCSI disk controller
- Optional SDI and DV I/O
- Optional AES/EBU audio I/O (w/SDI or DV Option)

## SOFTWARE

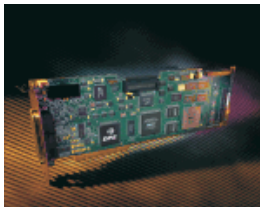
- Batch Transcoding
- Simultaneous fill and alpha output (analog and SDI)
- Timelapse recording

- Compositing interface with Digital Fusion integration
- Unify project function
- DPS Virtual Tape File System (VTFS)
- Network rendering support
- Basic editing (timeline/storyboard/playlist/numeric)
- EDL import and export
- Real-time logo/graphic overlay
- Deck control and VTR emulation
- 4 track audio with guaranteed sync
- Trim table with track patching
- Direct export to RealNetwork's® RealVideo®, Windows Media™, AVI, QuickTime™, and Ligos GoMotion™-powered MPEG-1 and MPEG-2
- Real time VGA playback (in a window)

The dpsReality™ Studio Digital Disk Recorder (SDDR) is the ultimate tool for animators, composers, and post-production professionals. With a comprehensive range of video and audio I/O, easy integration with all popular graphics software, compressed and uncompressed video playback and recording with integrated alpha channel support, and dpsNetStream™ technology for real-time web streaming and MPEG-2 output, dpsReality includes all of the features you need to create and edit your animations and output them for video, broadcast, CD-ROM, DVD and Internet streaming.

transcoding makes output in multiple distribution formats easy and efficient.

### dpsReality – The Hardware

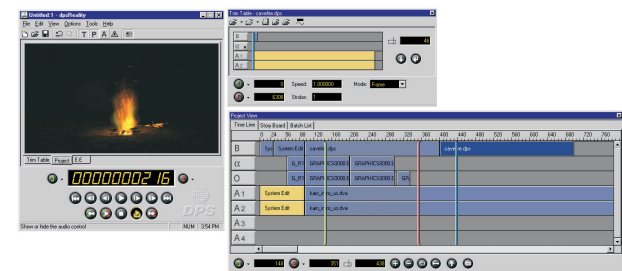


Built on the hardware expertise that won us an Emmy® Award in 2000 for Outstanding Achievement in Television Technology, the dpsReality digital disk recorder features real-time playback of two video streams and two graphics streams, plus real-time 3D effects

with the optional V3DX daughtercard. The dpsReality hardware features composite, S-video, component, and optional SDI and DV video I/O; balanced, unbalanced, and optional digital audio I/O; and integrated alpha channel support (4:2:2:4), including simultaneous key and fill output. dpsReality supports compressed and uncompressed video playback and recording, providing unparalleled video quality, and includes an integrated SCSI controller. dpsReality packs all of this power, plus multi-channel audio mixing, video mixing, and keying onto a single PCI card that requires just one IRQ.

### dpsReality – The Software

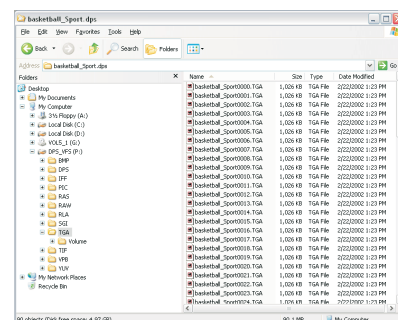
The dpsReality software includes all of the functions needed for animation output, editing (including real-time transitions and keying of titles) and broadcast playback. For advanced compositing and effects, dpsReality features tight integration with eyeon's award-winning Digital Fusion® and DFX+™. dpsReality lets you easily create output directly from the timeline for any popular distribution format — video tape, CD-ROM, DVD or the web. Web formats including RealNetworks® RealVideo®, Microsoft® Windows Media™ and QuickTime™ can be output from the timeline in real time, plus Ligos™ GoMotion™-powered MPEG-1 and MPEG-2 formats for CD-ROM and DVD authoring. Batch



dpsReality's VTR emulation features allow dpsReality to be controlled remotely via RS-422, making it an ideal non-linear substitution for the traditional VTR.

### Seamless Integration and Interchange – the VTFS

The media handling capabilities of dpsReality are unrivaled. The uniquely flexible DPS Virtual Tape File System™ (VTFS™) provides seamless and transparent interchange between video files and ten different image file formats, with no manual steps or additional storage space required. The VTFS also enables simultaneous read and write network access from multiple machines, without the file locking problems typical in other solutions. Animation software can even render to dpsReality while the hardware is already playing back the video file, making it ideal for render farms and collaborative environments.



The VTFS provides seamless integration between dpsReality and all major animation, compositing and effects packages. While video data is stored on the system as DPS video files, the VTFS makes the video data also appear to application programs as sequences of frames in ten different image file formats, including TGA, TIF, SGI, PIC and BMP. The key is that these frames in these formats don't actually exist until an application specifically accesses a frame – hence the "Virtual" in VTFS. When an application accesses a specific frame in its preferred format, the VTFS automatically generates that frame, in that format, from the actual stored DPS video clip, with no manual conversion steps required by the user. Similarly, an application can save a numbered frame in any of the ten formats, and it will automatically be incorporated directly into the specified video clip, ready for immediate output.

## SPECIFICATIONS

Specifications and designs are subject to change without notice

### Analog Video Inputs<sup>1</sup>

Composite (BNC)	1V p-p, 75Ohm
S-Video (4-Pin Mini-DIN)	
Y Signal	1V p-p, 75 Ohm
C Signal	286mV p-p (NTSC) 300mV p-p (PAL)

### Component Betacam (BNC's)

Y Signal	1V p-p, 75 Ohm
R-Y, B-Y (Pr,Pb)	700mV p-p (NTSC) 525mV p-p (PAL)

### Digital Video Inputs

(Available with Optional Digital I/O Cards)

SDI (SMPTE 259M, BNC)	2800mV, 75 Ohm Auto EQ to 300m
DV	IEEE-1394

### Analog Audio Inputs

Balanced (XLR-F)	+4 dBu Nominal, +20 dBu Maximum
Unbalanc. Line (RCA)	-10 dBV Nominal, +6 dBV Maximum
Unbalanc. AUX (RCA)	-10 dBV Nominal, +6 dBV Maximum
LTC Input (RCA)	0.1 - 5.0V p-p

### Digital Audio Inputs

(Available with Optional Digital I/O Cards)<sup>3</sup>

Professional Format	
ES/EBU (EIAJ CP-340, XLR)	5V Balanced, 110 Ohm
ES/EBU (SMPTE-267M, BNC)	1V Unbalanced, 75 Ohm
Consumer Format	
S/PDIF (RCA)	500mV Unbalanced

### Analog Video Outputs<sup>1</sup>

Primary (Program)	
Composite (BNC)	1V p-p, 75 Ohm
S-Video (4-Pin Mini-DIN)	
Y Signal	1V p-p, 75 Ohm
C Signal	286mV p-p (NTSC), 300mV p-p (PAL)

### Secondary (Preview/Alpha channel)<sup>4</sup>

Composite (BNC)	1V p-p, 75 Ohm
Component Betacam (BNC's)	
Y Signal	1V p-p, 75 Ohm
R-Y, B-Y (Pr,Pb)	700mV p-p (NTSC), 525mV p-p (PAL)
Time Code Video (VITC)	
Composite w/VITC (BNC)	1V p-p, 75 Ohm

### Digital Video Outputs

(Available with Optional Digital I/O Cards)

SDI (SMPTE 259M, BNC 800mV, 75 Ohm x 2) <sup>5</sup>	
DV	IEEE-1394

### Analog Audio Outputs

Balanced (XLR-M)	+4 dBu Nominal, +20 dBu Maximum
Unbalanc. Line (RCA)	-10 dBV Nominal, +6 dBV Maximum
LTC Output (RCA)	1V p-p

### Digital Audio Outputs

(Available with Optional Digital I/O Cards)<sup>6</sup>

Professional Format	
ES/EBU (EIAJ CP-340, XLR)	5V Balanced, 110 Ohm
ES/EBU (SMPTE-267M, BNC)	1V Unbalanced, 75 Ohm
Consumer Format	
S/PDIF (RCA)	500mV Unbalanced

### Genlock Inputs<sup>7</sup>

Composite (BNC)	1V p-p, 75Ohm
Timing Adjustment Range	
Horizontal	>± 2µsec
Subcarrier	360°

### Hard Drive Interface<sup>8</sup>

Internal/External 68 pin Ultra Wide SCSI-2

### Native Raster Size

525 Line (NTSC)	720 x 486
625 Line (PAL)	720 x 576

### Video Performance<sup>9</sup>

Frequency Response	0 - 5.0 MHz (+/- 0.25 dB), 5.0 - 5.5 MHz (-1.5 dB)
K-Factor (2T)	< 1%
Differential Phase	< 1°
Differential Gain	< 1%
Signal/Noise Playback	> 68 dB
Capture + Playback	> 60 Db

### Audio Performance

A/D	18 Bit over-sampled Sigma-Delta
DAC	18 Bit over-sampled Sigma-Delta
Sample Rates	11/22.05/32/44.1/48 KHz
Frequency Response	20 Hz - 20 KHz, ± 0.5 dB
Dynamic Range	88 dB (A weighted)
THD	0.005% Max

### Power Consumption

Dual Stream SDDR Card	
+5V	1.5 Amp
+12V	400 mA
-12V	80 mA
Total	13 Watt
Optional V3DX Real Time 3D DVE Module	
+5V	1.5 Amp
Total	7 Watt
Optional Digital I/O Cards	
+5V	1.5 Amp
+12V	250 mA
-12V	25 mA
Total	11 Watt

- Video input and output levels correspond to 75% color bar signal with 100% white reference bar.
- Embedded ES audio conforming to SMPTE-272M is supported on the SDI input. Audio may be synchronous or asynchronous with respect to both the SDI video, and system audio sample clock.
- Digital audio data can also be derived from either of the SDI or DV input data streams.
- The secondary video output(s) are software selectable between composite and component formats.
- Embedded ES audio conforming to SMPTE-272M may be inserted into the SDI output stream.
- Digital audio data may also be inserted into both of the SDI and DV output data streams.
- The genlock video input is shared with the main composite video input. In normal operation, the video output is gen-locked to the video signal applied to the composite video input. Video output timing may also be derived from an on-board crystal reference oscillator when no reference video signal is available.
- Compatible with Ultra-Wide SCSI-2, Wide SCSI-2, Fast SCSI-2 type devices and LVD devices operating in single ended (SE) mode. Supplied external SCSI adapter provides HD-68 SCSI connector mounted on expansion slot tang.
- Composite Input has NTSC notch at 3.58 MHz (PAL notch at 4.43 Mhz).

### ORDERING INFORMATION

The dpsReality hardware and software are included as part of every dpsVelocity non-linear editing package. Please see the dpsVelocity product page for ordering information and options.