GRAPHIC RESOLUTION DIGITAL RECORDING & STREAMING

**GRAPHICS
VIDEO
AUDIO**

DGy
JPEG2000 Codecs

Computer / radar / sonar / HD / FLIR / x-ray / audio

Up to 1600 x 1200 resolution

Multicast streaming

Interframe compression

Event marking

Random access

Simultaneous record / playback capability

External time code synchronization

Variable speed playback

Frame jog / shuttle

Multi-unit synchronization

Compact 1RU size

DGy™ codecs record, transmit, or stream high scan rate images. These codecs set a new standard in terms of image quality, using JPEG2000 compression to achieve visually lossless recording. Models are available in single channel or dual channel configurations, with or without disk drives.

The DGy system captures and compresses real time computer imagery, radar, sonar, FLIR, X-Ray, and HD video at up to 20 fps at 1600 x 1200 or 30 fps at 1280 x 1024 resolution. The JPEG2000 wavelet-based codec provides results superior to the more common DCT based compression schemes.

The DGy line includes four models. Models 210x and 401x include a removable hard disk and an optional fixed hard disk, offering from 10 to 32 hours of recording per drive. Models 301x and 501x use external network attached storage, such as a RAID, for centralized storage and retrieval. Models 401x and 501x can record two inputs at half rates, with fully synchronized playback.

All DGy codecs offer standard JPEG2000, plus optional interframe compression for streaming graphics across networks where higher compression rates are necessary to reduce bandwidth. The codecs also support file transfer to and from a remote computer or file server using standard ftp protocol.

The codecs offer an unparalleled feature set, including external time code synchronization (IRIG-B or Network Time Server), event marking, and random access. Multiple units can be interconnected to support simultaneous, synchronized recording of multiple channels. Remote playback on a PC is supported using a JPEG2000 plug-in to the Windows Media Player. In addition, the concurrent record and replay option allows review of imagery while recording is still in process.

The DGy codec's combination of superb image quality, rich feature set, and robust performance make it the ideal solution for demanding, mission-critical applications.

Models	201x	301x	401x	501x
Recording/Playback Channels	1	1	2	2
Number of Outputs	1	1	2	2
Internal Removable Disk	Yes	No	Yes	No
Network Attached Storage	Option	Yes	Option	Yes
Internal Fixed Disk	Option	No	Option	No

Simulation

Command & Control

Missile Testing/Telemetry

Mission Analysis

Medical

Training

Air Traffic Control

Security & Monitoring

Model 201x/301x Back Panel with Optional IRIG-B Time Code

Model 401x/501x Back Panel with Optional IRIG-B Time Code

Specifications

High Resolution Graphics Input

Analog RGB
Number	2 (Models 401x/501x) 1 (Models 201x/301x)
Connector type	DVI-I single-link (integrated analog/DVI 29 pin connector)
Signal formats	Interlaced or non-interlaced
Video level	Nominal 0.7 V p-p
	(1.0 V composite p-p)
Input impedance	75 ohms
Sample rate	Up to 170 MHz
Resolution	640 x 480 to 1600 x 1200
Sync	3 wire (sync on green)
	4 wire (separate composite sync)
	5 wire (separate H and V sync)
Sync level	0.3 V p-p (3 wire)
	1 to 5 V (4 and 5 wire)

DVI
Number	2 (Models 401x/501x) 1 (Models 201x/301x)
Connector type	DVI-I single-link (integrated analog/DVI 29 pin connector)
Resolution	640 x 480 to 1600 x 1200
Pixel rate	Up to 165 MHz

Audio Inputs

Analog
Number	Single Channel Mode: 2 mono or 1 stereo
	Dual Channel Mode: 2 mono or 1 stereo
Sample rate	11.025, 22.05, or 44.1 kHz
Audio level (line)	1 Vpp nominal
Audio level (mic)	-40 dBV
Input impedance	47 k ohms
Connector type	RCA phono

External Time Code Synchronization

Network Time Server	Format: Network Time Protocol (NTP)
	User selectable polling intervals.
IRIG-B (Option)	Format: B003 (DCLS) or B123 (1kHz modulated)

High Resolution Graphics Output

Analog RGB
Number	1
Connector type	DVI-I (integrated analog/DVI 29 pin connector)
Signal format	RGB
Video level	Nominal 0.7 V p-p
Output impedance	75 ohms
Sample rate	Up to 240 MHz
Resolution	640 x 480 to 1600 x 1200
Sync	3 wire (sync on green),
	4 wire (separate composite sync),
	5 wire (separate H and V sync)
Sync level	0.3 V p-p (3 wire),
	5 V p-p (4 and 5 wire)

DVI
Number	2 (Models 401x/501x) 1 (Models 201x/301x)
Connector type	1 DVI-I single-link, 1 - DVI-D dual-link
Resolution	640 x 480 to 1600 x 1200
Pixel rate	Up to 330 MHz (dual-link) (single-channel mode)
	Up to 165 MHz (single-link) (dual-channel mode)

Audio Outputs

Analog
Number	Single Channel Mode: 2 mono or 1 stereo
	Dual Channel Mode: 2 mono or 1 stereo
Audio level (line)	1 Vpp nominal
Output impedance	Low impedance suitable for 10 k ohm bridging load
Connector type	RCA phono

Control

Network Connection
Type	10/100/1000 Base-T Ethernet
Connector type	RJ 45
Command line	Internal telnet server
Graphical interface	Internal web server for browser based control panel software

RS-232 Serial
Connector type	9 pin D sub female
Baud rate	9600 baud to 115 k baud
Function	Command line control of all system functions

Other

Power	< 60 W
Size:	Models 201x/401x 17.5" (w) x 19" (d) x 1.75" (h)
	Models 301x/501x 17.5" (w) x 12" (d) x 1.75" (h)
	excluding rack mount adapters
Rackmount	Included