JPEG 2000 CODECS

Graphics Over IP

DGy 301HD, 301x, 302x & 501x Codecs

Computer / radar / sonar / HD / FLIR / X-Ray

Highest fidelity reproduction

Up to HD and 1920x1200 resolution

Multicast streaming

Interframe compression

Event marking

Instant random access

Simultaneous record and playback

External time code synchronization

Variable speed playback

Frame jog / shuttle

Multi-unit synchronization

Compact 1RU size

DGy™ codecs stream, record, and transmit high scan rate images. Models are available in either single channel or dual channel. The DGy sets a new standard in terms of image quality, using JPEG2000 compression to achieve visually lossless recording, with results superior to the more common DCT based compression schemes.

DGy codecs support computer, radar, sonar, FLIR, X-Ray, and HD signals, plus stereo audio. All models can stream or record 1600 x 1200 resolution inputs at up to 20 frames per second or 1280 x 1024 resolution inputs up to 30 fps. In addition, the model 301HD can record to a network attached storage device at resolutions up to 1920 x 1200 at 30 fps.

The codecs use external network attached storage, such as a RAID, for centralized recording storage and retrieval. The 501x can record two inputs at half rates, with fully synchronized playback. The 302x offers all of the functionality of the standard model 301x but in a more compact format designed for desktop use.

DGy codecs offer standard JPEG2000, plus interframe compression, making them an ideal solution for streaming graphics across networks where higher compression rates are necessary to avoid overtaxing network bandwidth. The codecs also support file transfer with remote computers or file servers using standard FTP protocol.

The DGy codecs offer an unparalleled feature set, including external time code synchronization (IRIG-B or Network Time Server), event marking, random access, variable speed playback, and frame-by-frame jog/shuttle. Multiple DGy units can be interconnected to support simultaneous, synchronized recording of multiple channels. Remote playback on a Windows PC is supported using our X.TV JPEG 2000 plug-in to the standard Windows Media Player. The simultaneous record and replay option allows review of imagery while recording is still in process.

A combination of superb image quality, rich feature set, and outstanding performance make DGy codecs the ideal solution for demanding 24/7 mission critical applications.

Simulation

Command & control

Missile testing / telemetry

Mission analysis

Medical

Training

Security & monitoring

	301HD	301x	302x	501x
Streaming channels	1	1	1	2
Record / playback channels	1	1	1	2
Maximum resolutions	1920x1200	1600x1200	1600x1200	1600x1200
Configuration	1 RU	1 RU	Desktop	1 RU

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Specifications

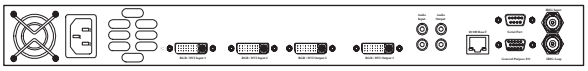
Order #	DGy 300 HD	DGy 301x	DGy 302x	DGy 501x

High Resolution Graphics Input

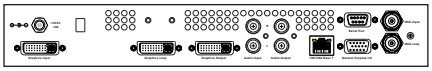
Analog RGB	
Number	1 or 2 (Model 501x)
Connector type	DVI-I
Signal formats	Interlaced or non-interlaced
Video level	Nominal 0.7 V p-p, (1.0 V composite p-p)
Input impedance	75 Ohms
Sample rate	Up to 170 MHz
Resolution	Up to 1600x1200; Model 301HD: up to 1920x1200
Sync	3 wire (sync on green), 4 wire (separate 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	1 or 2 (Model 501x)
Connector type	DVI-I
Resolution	640x480 to 1600x1200; Model 301HD: 1920x1200
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 (DGy 501x)
Sample rate	11.025, 22.05, or 44.1 kHz
Audio level (line)	1V p-p nominal
Audio level (mic)	-40 dBV
Input impedance	47k Ohms (unbalanced)
Connector type	RCA phono
External Time Code Synchronization	
Network Time Server	Format: Network Time Protocol (NTP), User selectable polling intervals
IRIG (Option)	Format: B123, DCLS or 1 kHz modulated



DGy model 501x back panel with optional IRIG-B time code



DGy model 302x back panel with optional IRIG-B time code

High Resolution Graphics Output

Analog RGB	
Number	1
Connector type	DVI-I single-link (integrated analog/DVI 29 pin connector)
Video level	Nominal 0.7 V p-p
Output impedance	75 Ohms
Sample rate	Up to 240 MHz
Resolution	Up to 1600x1200; Model 301HD: up to 1920x1200
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	1 or 2 (model 501x)
Resolution	Up to 1600x1200; Model 301HD: up to 1920x1200
Connector type	DVI-I

Audio Outputs

Analog	
Number	Single Channel Mode: 2 mono or 1 stereo Dual Channel Mode: 2 mono or 1 stereo (model DGy 501x only)
Audio level (line)	1 V p-p nominal
Output impedance	Low impedance suitable for 10k Ohm bridging load (unbalanced)
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 115k baud
Function	Command line control of all system functions

Other

Power:	Models 301HD, 301x/501x: 100-240 VAC autoranging, 50-60 Hz, <60 W Model 302x: 12 V input with external AC/DC adapter, <60 W
Size:	Models 301HD: 301x/501x: 17.5”/44.5 cm (w) x 12.0”/30.5 cm (d) x 1.75”/4.5 cm (h) Model 302x: 12.0”/30.5 cm (w) x 9.1”/23.1 cm (d) x 1.75”/4.5 cm (h)
Weight:	Models 301HD/301x/501x: 11.0 lbs (5.0 kg), Model 302x: 6.3 lbs (2.85 kg)