JPEG 2000
DIGITAL GRAPHICS
RECORDERS

DGy 201H D, 201x, 401x

Computer / Radar / Sonar / HD / FLIR / X-Ray

Highest fidelity JPEG2000 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

Automatic back-up

Frame jog / shuttle

Multi-unit synchronization

Compact 1RU size

Simulation

Command & control

Missile testing / telemetry

Mission analysis

Medical

Training

Air traffic control

Security & monitoring

DGy™ codecs record, transmit, and stream high scan rate images. The DGy sets a new standard in terms of image quality, using JPEG2000 compression to achieve visually lossless recording to internal disk drives or network attached storage devices such as RAIDs. DGy wavelet-based codecs provide results superior to more common DCT based compression schemes.

DGy systems capture, compress, store, replay, and stream imagery at up to 1920 x 1200 pixel resolution. They support recording of computer, radar, sonar, FLIR, X-Ray, and HD signals at up to 30 frames per second, plus stereo audio. Models are available with a removable hard disk and an optional fixed drive offering recording storage from 8 to 32 hours per drive. They also offer the option to use external network attached storage for centralized, higher capacity storage. The DGy 401x can record 2 inputs at half rates with fully synchronized playback.

All DGy recorders 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 recorders also support file transfer with remote computers or file servers using standard FTP protocol.

Features include 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 a JPEG2000 plug-in to the standard Windows Media Player. A simultaneous record/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 recorders the ideal solution for demanding, mission critical application.

	201HD	201x	401x
Maximum record/replay resolution	1920x1200	1600x1200	1600x1200
Frame rate at maximum resolution	30fps	20fps	20fps total
Frame rate at 1280x1024 resolution	30 fps	30fps	30fps total
Recording/playback channels	1	1	2

Specifications

Order #	DGy 201 HD	DGy 201x	DGy 401x

High Resolution Graphics Input

Analog RGB
Number	1
Connector type	DVI-I single-link
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 (models 201x & 401x);
Sync	up to 1920x1200 (model 201HD)
Sync level	3 wire (sync on green), 4 wire (separate composite sync),
	5 wire (separate H and V sync)
	0.3 V p-p (3 wire), 1 to 5 V (4 and 5 wire)

Analog RGB
Number	Models 201HD & 201x: 1
	Model 401x: 2 (with DVI loop)
Connector type	DVI-I single-link
Resolution	Up to 1600x1200 (models 201x & 401x);
	up to 1920x1200 (model 201HD)
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 (model 401x)
Sample rate	11.025, 22.05, or 44.1 kHz
Audio level (line)	1 V p-p nominal
Input impedance	47k Ohms (unbalanced)
Connector type l	RCA phono

External Time Code Synchronization
Network Time Server	Format: Network Time Protocol (NTP),
	User selectable polling intervals.
IRIG (Option)	Format: B123, DCLS or 1kHz modulated

1
DVI-I single-link
Nominal 0.7 V p-p
75 Ohms
Up to 240 MHz
Up to 1600x1200 (models 201x & 401x);
up to 1920x1200 (model 201HD)
3 wire (sync on green), 4 wire (separate composite sync),
5 wire (separate H and V sync)
0.3 V p-p (3 wire), 5 V p-p (4 and 5 wire)

1 or 2 (model 401x)
Up to 1600x1200 (models 201x & 401x);
Up to 1920x1200 (model 201HD)
DVI-I

Audio Outputs

Analog
Number	Single Channel Mode: 2 mono or 1 stereo
	Dual Channel Mode: 2 mono or 1 stereo (DGy 401x)
Audio level (line)	1 V p-p nominal
Output impedance	Low impedance suitable for 10k Ohm bridging load (unbalanced)
Connector type	RCA phono

Data Storage

Removable drive	Standard
Fixed drive	Option
Network file storage	Option

Control

Network Connection
Type	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

Power	100 - 240 VAC autoranging, 50-60 Hz < 60 Hz
Size	17.5"/44.45 cm (w) x 19"/28.26 cm (d) x 1.75"/4.45 cm (h)
Rackmount	Included
Weight	16.0 lbs (7.26 kg)

DGy model 201HD/201x back panel with optional IRIG-B time code