



## JPEG 2000 GRAPHICS RECORDERS

### Digital Graphics Recorders

DGy 201HD, 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**

**Security & monitoring**

DGy™ codecs/recorders set a new standard in terms of image quality, using JPEG 2000 compression to achieve visually lossless recording to internal disk drives or network attached storage devices such as RAID's. 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 eight 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 two 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 our X:™ 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 24/7 mission critical applications.

	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

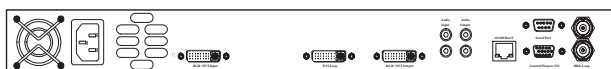


**SPECTRUM**<sup>®</sup>  
visual resource management™

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## Specifications

Order #	DGy 201 HD	DGy 201x	DGy 401x
<b>High Resolution Graphics Input</b>			
Analog RGB			
Number	Models 201HD & 201x: 1 Model 401x: 2 (with DVI loop)		
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); up to 1920x1200 (model 201HD)		
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	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		
<b>Audio Inputs</b>			
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	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		
<b>High Resolution Graphics Output</b>			
Analog RGB			
Number	1 or 2 (model 401x)		
Connector type	DVI-I single-link		
Video level	Nominal 0.7 V p-p		
Output impedance	75 Ohms		
Sample rate	Up to 240 MHz		
Resolution	Up to 1600x1200 (models 201x & 401x); up to 1920x1200 (model 201HD)		
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 401x)		
Resolution	up to 1600x1200 (models 201x & 401x); up to 1920x1200 (model 201HD)		
Connector type	DVI-I		
<b>Audio Outputs</b>			
Analog			
Number	Single Channel Mode: 2 mono or 1 stereo Dual Channel Mode: 2 mono or 1 stereo (model 401x)		
Audio level (line)	1 V p-p nominal		
Output impedance	Low impedance suitable for 10k Ohm bridging load (unbalanced)		
Connector type	RCA phono		
<b>Data Storage</b>			
Removable drive	Standard		
Fixed drive	Option		
Network file storage	Option		
<b>Control</b>			
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		
<b>Other</b>			
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