



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

Stereo Audio

Highest fidelity reproduction

Up to 1600 x 1200 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

HIGH RESOLUTION DIGITAL GRAPHICS STREAMING CODECS

DGy 301x, 302x & 501x Codecs

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. This wavelet-based codec provides results superior to the more common DCT based compression schemes.

The system streams, captures, compresses, stores, and replays imagery at up to 1600 x 1200 pixel resolution. It supports 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.

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, and random access. Multiple DGy units can be interconnected to support simultaneous, synchronized recording of multiple channels. Remote playback on a Windows PC is supported using a 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, mission critical applications.

	301x	302x	501x
Streaming / recording / playback channels	1	1	2
Number of outputs	1	1	2
Configuration	1 RU	Desktop	1 RU

Specifications

High Resolution Graphics Input

Specifications subject to
change without notice
Made in the USA
©2008 RGB Spectrum

Analog RGB	
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	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	Models 301x/302x: 1 Model 501x: 2
Connector type	DVI-I
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 (DGy 501x)
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 (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

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	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	Models 301x/302x: 1 Model 501x: 2
Resolution	640 x 480 to 1600 x 1200
Connector type	DVI-I

Audio Outputs

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

Other

Power:	Models 301x/501x: < 60 W Model 302x: < 20 watts, internal: DC inverter, external: 120-240 VAC 12 VDC adapter
Size:	Models 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 301x/501x: 11.0 lbs (5.0 kg), Model 302x: 6.3 lbs (2.85 kg)

Simulation

Command & control

Missile testing / telemetry

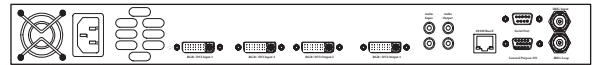
Mission analysis

Medical

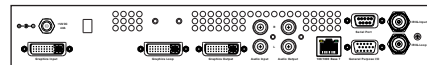
Training

Air traffic control

Security & monitoring



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



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