

GSS 100

GRAPHIC STILL STORE

- Accepts BMP and JPEG graphic files
- RGB source input pass-through
- Automated, programmable slide shows
- Cut and dissolve transitions between stored images
- 49 selectable output rates including HDTV 1080i
- RS-232 remote control
- IP Link® technology



The Extron GSS 100 Graphic Still Store is a compact, self-contained still store that accepts BMP and JPEG format graphic files, and outputs a high resolution analog RGBHV computer-video signal. It is ideal as a source for the presentation of company logos, digital photos, text slides, and other graphic images. The GSS 100 is designed for fast, easy integration in rental and staging systems, corporate lobbies, boardrooms, houses of worship, and many retail and digital signage applications.



Extron® Electronics

www.extron.com

DESCRIPTION

The Extron **GSS 100** Graphic Still Store is a unique, compact still store designed to play back high resolution company logos, digital photos, presentation slides, and other text or graphic images, as part of an A/V presentation. The GSS 100 is useful for displaying text or graphics between presentation sessions, or for continuous slide show playback in kiosks or store signage. The GSS 100 replaces the need for a dedicated graphics PC in event staging, conference rooms and boardrooms, houses of worship, digital signage, and similar applications.

The GSS 100 accommodates BMP or JPEG format graphics up to SXGA+ (1400 x 1050) and HDTV (1080i). Graphics files are easily uploaded from a PC via the GSS 100's high-speed IP Link® Ethernet port. IP Link allows the GSS 100 to be managed and controlled locally or remotely, with multiple-level password protection, ensuring that only authorized images are displayed. With 16 MB of internal image storage, the GSS 100 accommodates six XGA resolution (1024 x 768) BMP graphics files, or 32 or more XGA resolution JPEG images at typical rates of compression. Stored images may be played back selectively or sequentially in a slide show presentation. Transition effects include cut and variable-rate dissolves, with user-programmable slide display and transition intervals.

The GSS 100 is designed for a wide range of image display needs. For dynamic digital signage, ideal for eye-catching displays in high-traffic retail locations, BMP files at XGA resolution can be loaded and displayed in as little as 3 seconds between images. For applications using a greater number of files, such as meeting agendas, daily schedules, electronic menus and billboards, and environmental art, JPEG XGA resolution files are loaded and displayed in 5 seconds or less.

A special RGB pass-through enables easy installation between the output of a source (or switcher) and the display device, without the need for separate RGB switching. For effortless, automated operation, the GSS 100 automatically engages its output whenever the pass-through input is interrupted, such as during the exchange of laptops in a presentation. The output resolution is selectable, up to SXGA+, to match the native resolution of the display device. The GSS 100 also provides the appropriate sync format to match the display monitor or projector.

FEATURES

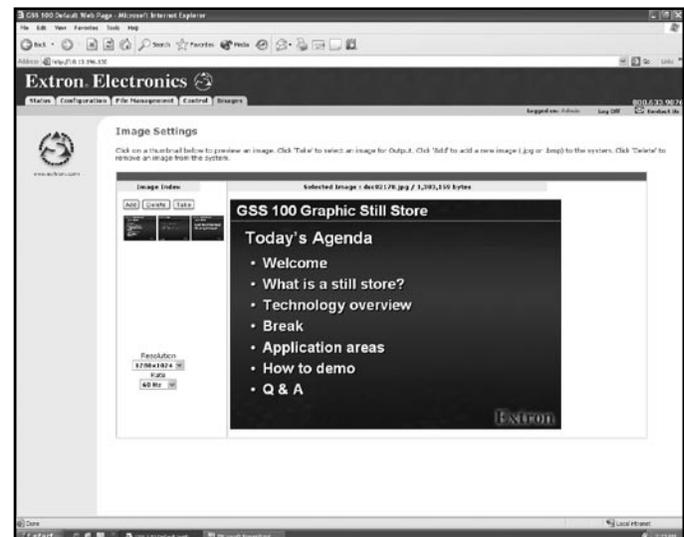
- **Accommodates BMP and JPEG format graphic files** – The GSS 100 accepts BMP and JPEG images, and outputs analog RGB computer-video to a display device.
- **Upload graphic files from a PC** – BMP and JPG files are easily loaded from a PC via the high-speed IP Link Ethernet port.
- **16 MB internal image storage** – Sufficient for six XGA resolution (1024 x 768) BMP graphics, or 32 or more JPEG images at XGA resolution, depending on compression rates.
- **Fast stored image loading** – XGA (1024x768) resolution graphics are loaded from memory in as little as 3 seconds, and may be held for display from 1 to 300 seconds.
- **RGB pass-through for easy system integration and operation** – RGB computer-video output can be passed through the GSS 100, eliminating the need for a separate RGB switcher.
- **Play back stored images as an automated, programmable slide show** – The GSS 100 can sequence through stored images as an automatic, continuous slide show presentation with a programmable display interval. The same slide show sequence is automatically resumed following a power disruption.
- **Smooth image transitions including cut and variable-rate dissolves** – Image transition effects enable smooth, professional quality presentations.
- **RGB delay when switching between stored image and RGB pass-through** – When the GSS 100 switches between its image and the pass-through outputs, RGB delay blanks the screen, so there is no glitch shown during the transition. The time delay is adjustable up to five seconds.

FEATURES (Cont.)

- **Auto sync sensing maintains an on-screen image** – When sync loss is detected on the pass-through input, the GSS 100 automatically switches to a stored image. This ensures that an image, such as a company logo, is always on-screen, even when the primary source (such as a laptop) is disconnected.
- **49 selectable output rates including HDTV 1080i** – The output rate is selectable to match the native resolution of the display device. For optimum display, the resolution of the stored images should be equal to the output resolution.
- **RGBHV or RGBS output format** – The RGB computer-video output of the GSS 100 can be configured based on the sync format required by the display monitor or projector.
- **Local or remote file management via IP Link®** – Image files may be uploaded, managed, and sequenced, locally or remotely, through the IP Link Ethernet port.
- **IP Link Ethernet monitoring and control** – An IP integration technology developed by Extron, IP Link enables the GSS 100 to be controlled and proactively monitored over a LAN, WAN, or the Internet. Graphic files are uploaded from a PC to the GSS 100 through the IP Link Ethernet port. The integrated Web server facilitates control and configuration, including slide show programming, from any authorized Web client.
- **RS-232 control** – Through RS-232, the GSS 100 can be integrated with third-party control systems using Extron Simple Instruction Set (SIS™) serial commands.
- **Front panel security lockout** – This feature locks out all front panel functions except for image selection; all functions however, are available through RS-232 or IP Link control.
- **Rack-mountable 1U, half rack width metal enclosure**
- **Internal international power supply** – The 100-240VAC, 50/60 Hz, autoswitchable internal power supply provides worldwide power compatibility.

INTEGRATED WEB SERVER

The GSS 100 features an integrated, high performance IP Link® Web server, with internal Web pages that provide an intuitive user interface for easy set up and configuration. A convenient image file editor is included to facilitate the preview, addition, or deletion of image files.



GSS 100 IP Link® Web user interface

VIDEO INPUT

Number/signal type 1 VGA-SXGA+ RGBHV, RGBS pass-through
 Connectors 5 female BNC
 Nominal level..... 0.7 Vp-p for RGB
 Minimum/maximum levels Analog: 0.3 V to 1.5 Vp-p with no offset
 Impedance 75 ohms
 Horizontal frequency..... 15 kHz to 145 kHz
 Vertical frequency 30 Hz to 170 Hz
 Return loss <-42 dB @ 5 MHz
 DC offset (max. allowable)..... 1.5 V

VIDEO OUTPUT

Number/signal type..... 1 VGA-SXGA+ RGBHV, RGBS
 (follows input type)
 Connectors 5 BNC female
 Nominal level..... 0.7 Vp-p for RGB
 Minimum/maximum levels 0 V to 0.7 Vp-p (follows input)
 Impedance 75 ohms
 Vertical frequencies 50 Hz, 60 Hz, 72 Hz, 96 Hz, 100 Hz, 120 Hz
 Output resolutions 640x480^{1,2,3,4,5,6}, 800x600^{1,2,3,4,5,6},
 852x480^{1,2,3,4,5}, 1024x768^{1,2,3,4},
 1024x852^{1,2,3,4}, 1024x1024^{1,2,3}, 1280x768^{1,2},
 1280x1024^{1,2}, 1360x768^{1,2}, 1365x768^{1,2},
 1365x1024^{1,2}, 1366x768^{1,2}, 1400x1050^{1,2},
 HDTV: 480p^{1,2}, 576p¹, 720p^{1,2}, and 1080i^{1,2}
¹ = at 50 Hz, ² = at 60 Hz, ³ = at 72 Hz,
⁴ = at 96 Hz, ⁵ = at 100 Hz, ⁶ = at 120 Hz
 Return loss -43 dB @ 5 MHz
 DC offset ±5 mV with input at 0 offset

SYNC

Input type RGBHV and RGBS pass-through
 Output type..... RGBHV, RGBS
 Input level 2.25V to 5.0Vp-p
 Output level TTL: 4.5Vp-p, unterminated
 Input impedance 510 ohms
 Output impedance 75 ohms
 Max input voltage 5.0 Vp-p
 Max. propagation delay..... 20 ns
 Polarity Variable

FILE LOADING TIMES (RANGE)

640 x 480
 Bitmap (BMP) 1.0 second
 JPEG (189 KB) 2.5 seconds
 JPEG (20 KB) 2.0 seconds
 1024 x 768
 Bitmap (BMP) 3.0 seconds
 JPEG (500 KB) 5.0 seconds
 JPEG (38 KB) 3.5 seconds
 1400 x 1050
 Bitmap (BMP) 5.0 seconds
 JPEG (821 KB) 11.0 seconds
 JPEG (57.6 KB) 8.0 seconds

MEMORY AND IMAGE STORAGE

Internal memory..... 16 MB
 Image Storage

		Total Megabytes of Memory Required (Resolution)				
Images Available		640 x 480	800 x 600	1024 x 768	1280 x 1024	1400 x 1050
Total Images	1	0.9 MB	1.4 MB	2.4 MB	3.9 MB	4.4 MB
	2	1.8 MB	2.9 MB	4.7 MB	7.8 MB	8.8 MB
	3	2.8 MB	4.3 MB	7.1 MB	11.8 MB	13.2 MB
	4	3.7 MB	5.8 MB	9.4 MB		
	5	4.6 MB	7.2 MB	11.8 MB		
	6	5.5 MB	8.6 MB	14.2 MB		
	7	6.5 MB	10.1 MB			
	8	7.4 MB	11.5 MB			
	9	8.3 MB	12.9 MB			
	10	9.2 MB	14.4 MB			
	11	10.1 MB	15.8 MB			
	17	15.7 MB				

NOTE: JPEG image storage is highly variable and is based on file size.
 To calculate, divide 16 MB by the JPEG file size. For example:
 16 MB ÷ 500 KB (0.5 MB) = 32 images

CONTROL/REMOTE

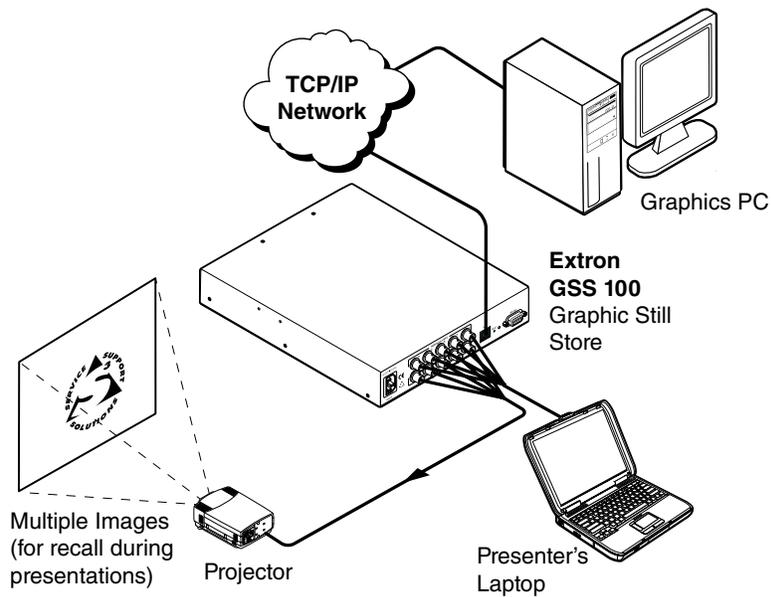
Serial control port RS-232, 9-pin female D connector
 Baud rate and protocol 38400, 19200, 9600 (default), 4800, 2400, or
 1200 baud (configurable); 8 data bits;
 1 (default) or 2 stop bits; no parity (default),
 or even or odd parity
 Serial control pin configurations 2 = TX, 3 = RX, 5 = GND
 Ethernet control port 1 RJ-45 female connector
 Ethernet data rate..... 10/100Base-T, half/full duplex with autodetect
 Ethernet protocol..... ARP, DHCP, ICMP (ping), TCP/IP, Telnet
 Ethernet default settings Link speed and duplex level = autodetected
 IP address = 192.168.254.254, subnet mask =
 255.255.0.0, default gateway = 0.0.0.0
 DHCP = off
 Program control Extron's Simple Instruction Set (SIS™)
 Microsoft® Internet Explorer, Telnet

GENERAL

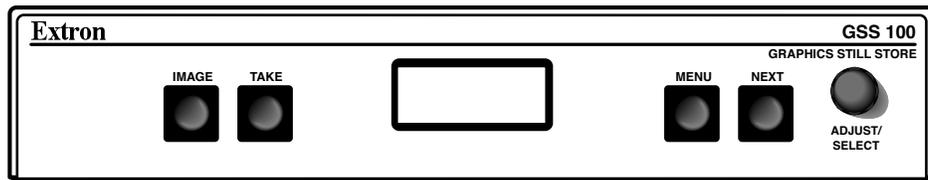
Power 100 VAC to 240 VAC, 50/60 Hz, 15 watts,
 internal, autoswitchable
 Temperature/humidity..... Storage: -40 to +158° F (-40 to +70° C) / 10%
 to 90%, noncondensing
 Operating: +32 to +122° F (0 to +50° C) / 10%
 to 90%, noncondensing
 Rack mount Yes, with optional 1U rack shelf,
 part #60-190-01 or 60-604-01; or
 furniture-mountable with optional brackets
 Enclosure type Metal
 Enclosure dimensions..... 1.7" H x 8.7" W x 9.0" D
 (1U high, half rack wide) 4.3 cm H x
 22.1 cm W x 22.9 cm D (Depth excludes
 connectors and knobs.)
 Product weight..... 4.5 lbs (2.1 kg)
 Shipping weight 7 lbs (4 kg)
 Vibration ISTA 1A in carton (International Safe Transit
 Association)
 Listings UL, CUL
 Compliances..... CE, FCC Class A, VCCI, AS/NZS, ICES
 MTBF..... 30,000 hours
 Warranty 3 years parts and labor
NOTE: All nominal levels are at ±10%

Model **Part Number**
 GSS 100 60-684-01

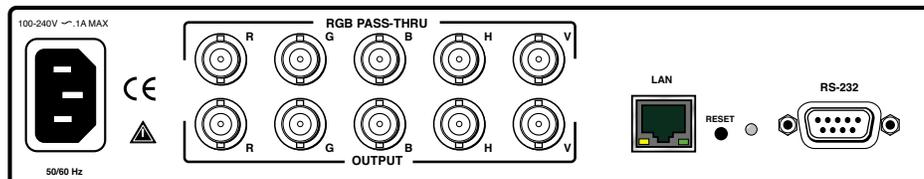
APPLICATION DIAGRAM



PANEL DRAWINGS



GSS 100 (Front)



GSS 100 (Back)



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