

IN1508

EIGHT INPUT SCALING
PRESENTATION SWITCHER WITH PIP

- Eight input A/V switching:
 - Composite video & S-video
 - Component video
 - HDTV component video
 - RGB computer-video
 - DVI-D
 - Stereo audio
- Seamless switching
- Scales video, HDTV, and computer-video input signals
- PIP - Picture-in-picture
- On-screen menu display
- RGB or component video output
- 36 scaled output rates, including HDTV and UXGA - 1600x1200



The IN1508 is an economical, eight input video and RGB presentation switcher that also provides high quality upscaling and downscaling for a wide variety of input sources, including high resolution RGB computer-video, HDTV, and standard definition video. Combining an eight input switcher and a high performance scaler in one device, the IN1508 is ideally suited for single-display presentation environments such as classrooms, small conference rooms, and boardrooms.



Extron® Electronics
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DESCRIPTION

The Extron **IN1508** is an eight input, A/V presentation switcher that accepts and scales a wide range of video signals to a common, high resolution output rate. It can accommodate two composite video, two S-video, one standard or high definition component video, one DVI-D, and two RGB computer-video sources. Eight input stereo audio switching is also provided with independent gain and attenuation control. The ability to accept multiple inputs of varying formats along with many other convenient and useful features make the IN1508 a true presentation switcher that is an ideal centerpiece for mid-sized A/V systems.

The IN1508 features a high performance scaling engine with the ability to scale standard definition video, high definition video, and computer-video signals up or down in resolution. With the IN1508, only a single RGBHV connection to the display is required, resulting in cost savings due to reduced installation time, cabling, and system programming. The IN1508 outputs RGB or component video output at 36 selectable output scan rates from VGA 640x480 to UXGA 1600x1200 resolution, as well as HDTV at 720p, 1080i, and 1080p.

For enhanced, more professional presentations, the IN1508 includes seamless switching between video and RGB inputs with selectable cut or fade through black transitions. The IN1508 also features a PIP picture-in-picture mode that allows a video source and an RGB source to be shown on one display. Several PIP presets are available, including side-by-side windows, and the PIP window can be dynamically positioned anywhere in the image.

The IN1508 is equipped for integrator-friendly access and configuration, as well as user friendly operation via the front panel, RS-232, and the included IR 903 infrared remote control. An on-screen display facilitates easy menu navigation as well as display of operational information pertaining to the selected input and system settings. The IN1508 is housed in a 1U, full rack width enclosure and can easily be integrated into many environments.

FEATURES

- **Integrates video, HDTV, DVI-D, and computer-video sources into presentation systems with audio switching** – The IN1508 provides centralized switching for a wide range of A/V sources.
- **RGB, HDTV, and video scaling** – RGB computer-video, high definition video, and standard definition video sources can all be scaled to the desired output resolution.
- **RGB upscaling and downscaling** – The IN1508 features an advanced scaling engine with high quality upscaling and downscaling of high resolution computer-video signals.
- **Picture-in-picture mode** – Allows a video source to be displayed within an RGB image, or vice versa. Six preprogrammed PIP window options are available, including side-by-side windows, with dynamic, fully adjustable window positioning. Audio follow can be set for either the main or PIP window.

FEATURES - Cont.

- **Seamless switching** – Switching is seamless between computer and video sources. The transition effect can be either a cut or fade to black. With seamless switching, presentations can be enhanced by eliminating distracting visual jumps, glitches, and distortion that would otherwise be likely when switching between RGB and video.
- **On-screen display** – The IN1508 features an on-screen display which facilitates easy menu navigation for setup and operation, as well as display of information pertaining to the selected input and system settings.
- **36 output rates up to UXGA - 1600 x 1200, including HDTV 1080p** – A total of 36 output scan rates are available including computer-video rates up to UXGA, 480p, 576p, and HDTV rates at 720p, 1080i, and 1080p.
- **RGB or component video output**
- **Audio switching with input gain and attenuation** – The IN1508 features stereo audio switching for each input source. Gain or attenuation can be adjusted for each input. Audio is output as balanced or unbalanced.
- **Picture controls for brightness, contrast, color, tint, detail, and horizontal and vertical positioning, sizing, and zoom**
- **Aspect ratio conversion** – Any video input can be adjusted horizontally and vertically to meet a specific aspect ratio requirement. Alternatively, the input aspect ratio may be specified as 4:3 or 16:9 and fixed.
- **Front panel security lockout** – This feature locks out all front panel functions except for input selection; all functions however, are available through RS-232 control.
- **3:2 NTSC and 2:2 PAL pulldown detection** – Advanced film mode processing techniques help maximize image detail and sharpness for NTSC or PAL sources that originated from film.
- **Quad standard video decoding** – The IN1508 uses a digital, four-line adaptive comb filter to decode NTSC 3.58, NTSC 4.43, PAL, and SECAM for integration into systems worldwide.
- **IR remote control** – The included Extron IR 903 Remote Control allows for input source switching, picture-in-picture, and direct access to picture adjustments.
- **RS-232 control** – Through RS-232, the IN1508 can be controlled and configured via an Extron MLC – MediaLink™ controller, or integrated into third-party control systems.
- **Rack-mountable 1U, full rack width metal enclosure**
- **Internal international power supply** – The 100-240VAC, 50/60 Hz, autoswitchable internal power supply provides worldwide power compatibility.

VIDEO INPUT	
Number/signal type.....	2 composite video 2 S-video 1 component video (interlaced, progressive, or HDTV) 2 RGBHV, RGBS, RGsB 1 DVI-D digital video (single link)
Connectors	2 female BNC (composite video) 2 female 4-pin mini DIN (S-video) 3 female BNC (component video) 2 female 15-pin HD (RGB) 1 DVI female (DVI-I)
Nominal level.....	1 Vp-p for Y of component video and S-video, and for composite video 0.7 Vp-p for RGB 0.3 Vp-p for R-Y and B-Y of component video, and for C of S-video
Minimum/maximum levels	0 V to 1 Vp-p with no offset
Impedance	75 ohms
Horizontal frequency.....	24 kHz to 100 kHz
Vertical frequency	50 Hz to 120 Hz
Resolution range	640 x 480 to 1600 x 1200, 480p, 576p, 720p, 1080i, and 1080p
Return loss	<-30 dB @ 5 MHz
DC offset (max. allowable).....	0.5 V

VIDEO PROCESSING	
Encoder	9 bit digital
Decoder.....	10 bit digital
Digital sampling.....	24 bit, 8 bits per color; 140 MHz standard
Colors	16.78 million

VIDEO OUTPUT	
Number/signal type.....	Scaled RGBHV, RGBS, RGsB; Y, R-Y, B-Y
Connectors	1 female 15-pin HD
Nominal level.....	1 Vp-p for Y of component video 0.7 Vp-p for RGB 0.3 Vp-p for R-Y, B-Y of component video
Minimum/maximum levels	0 V to 2 Vp-p
Impedance	75 ohms
Vertical frequency	50 Hz, 60 Hz, or 75 Hz, depending on selected output resolution
Scaled resolution.....	640x480 ^{1,2,3} , 800x600 ^{1,2,3} , 1024x768 ^{1,2,3} , 1024x852 ^{1,2,3} , 1024x1024 ^{1,2,3} , 1280x768 ² , 1280x1024 ^{1,2,3} , 1366x768 ^{1,2,3} , 1365x1024 ^{1,2,3} , 1400x1050 ^{1,2} , 1600x1200 ^{1,2} , 480p ² , 576p ¹ , 720p ^{1,2} , 1080i ^{1,2} , 1080p ² , ¹ = at 50 Hz, ² = at 60 Hz, ³ = at 75 Hz
Return loss	-21 dB @ 5 MHz
DC offset	±300 mV maximum with input at 0 offset

SYNC	
Input type	RGBHV, RGBS, RGsB
Output type.....	RGBHV, RGBS, RGsB; Y, R-Y, B-Y (tri-level)
Standards.....	NTSC 3.58, NTSC 4.43, PAL, SECAM
Input level	0 V to 5 Vp-p
Output level	TTL: 5 Vp-p, unterminated
Input impedance	75 ohms
Output impedance	75 ohms
Max input voltage	5 Vp-p
Polarity	Positive or negative (selectable)

AUDIO	
Gain	Unbalanced output: 0 dB; balanced output: +6 dB
Frequency response	20 Hz to 20 kHz, ±1.1 dB
THD + Noise	0.03% @ 1 kHz at nominal level, 0 dB gain
S/N	>90 dB at rated maximum output
Crosstalk	<-80 dB @ 1 kHz
Stereo channel separation	>84 dB @ 1 kHz

AUDIO INPUT	
Number/signal type	8 stereo, unbalanced
Connectors	5 pairs of RCA (tip-ring) jacks (3) 3.5 mm mini stereo (tip-ring-sleeve) jacks
Impedance	>10k ohms unbalanced, DC coupled
Nominal level.....	+4 dBu (1.23 Vrms), -10 dBV (316 mVrms)
Maximum level	+10.4 dBu, (unbalanced) at 1% THD+N
Input gain adjustment	-53 dBu to +9 dBu, adjustable per input
NOTE:	0 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV ≈ 2 dBu.

AUDIO OUTPUT	
Number/signal type	1 stereo, unbalanced 1 stereo, balanced/unbalanced
Connectors	1 pair of RCA (tip-ring) jacks (1) 3.5 mm captive screw connector, 5 pole
Impedance	50 ohms unbalanced, 100 ohms balanced
Gain error	±0.1 dB channel to channel
Maximum level (Hi-Z)	>+21 dBu, balanced at 1% THD+N >+11 dBu, unbalanced at 1% THD+N
Maximum level (600 ohm)	>+14 dBm, balanced at 1% THD+N >+10 dBm, unbalanced at 1% THD+N

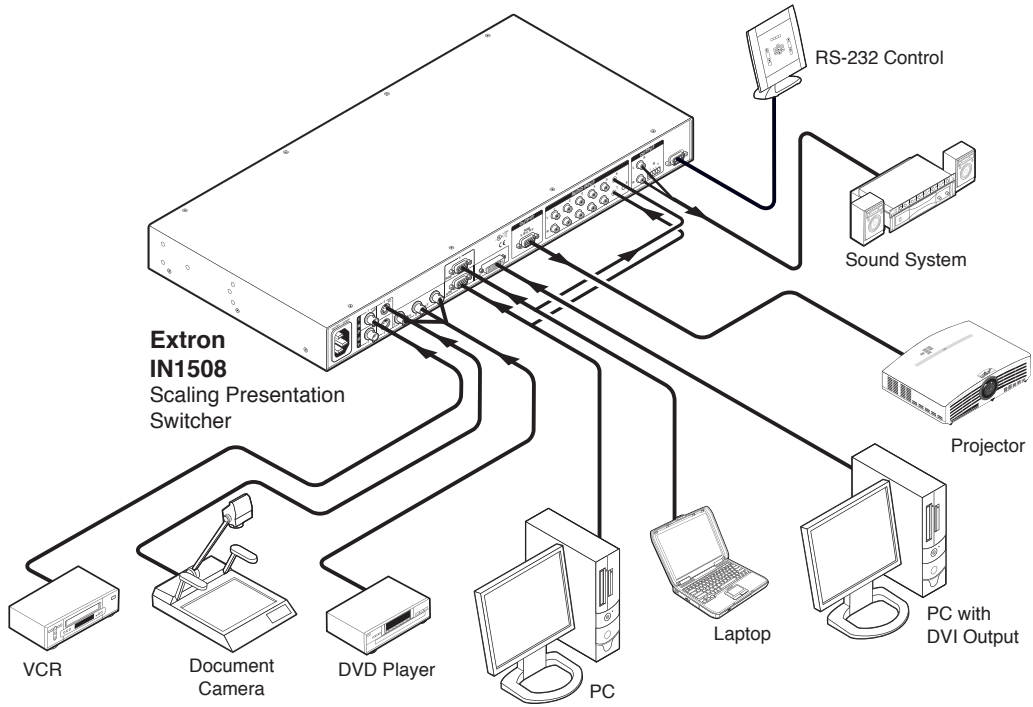
CONTROL/REMOTE — DECODER/SCALER	
Serial control port	RS-232, 9-pin female D connector
Baud rate and protocol	9600 baud, 8 data bits, 1 stop bit, no parity
Serial control pin configurations.....	2 = TX, 3 = RX, 5 = GND, 9 = hard-wired IR
IR controller module.....	IR 903 Remote
Program control.....	Extron's Simple Instruction Set (SIS™)

GENERAL	
Power	100 VAC to 240 VAC, 50/60 Hz, 30 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 included brackets
Enclosure type	Metal
Enclosure dimensions	1.75" H x 17.5" W x 8.5" D (1U high, full rack wide) 4.4 cm H x 44.4 cm W x 21.6 cm D (Depth excludes connectors and knobs. Width excludes rack ears.)
Product weight	7 lbs (3.2 kg)
Shipping weight	10 lbs (5 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%

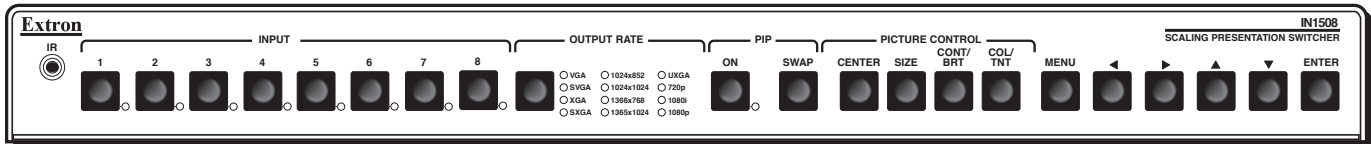
Model	Description	Part Number
IN1508	Eight Input Scaling Presentation Switcher with PIP...	60-569-01

Specifications are subject to change without notice.

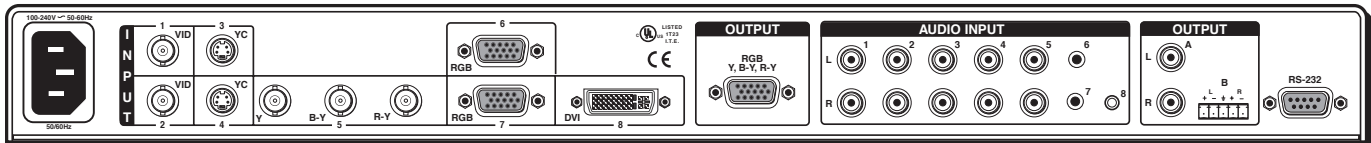
APPLICATION DIAGRAM



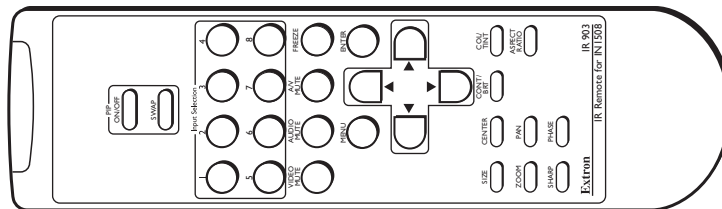
PANEL DRAWINGS



IN1508 (Front)



IN1508 (Back)



IR 903



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