

# Extron® Electronics

INTERFACING, SWITCHING AND DISTRIBUTION

Accepts 4:2:2 SDI in  
NTSC and PAL standards

10 bit processing

Auto-detects input format  
and de-serializes 270 Mbps

Auto input equalization

Re-clocked SDI input  
loop-through

Simultaneous composite  
and S-video outputs,  
third output available as  
component video or RGB

RGB or Betacam output

NTSC or PAL color  
bar test pattern

Rack mountable enclosure

Internal power supply



**SDI-AVR 100 – SDI TO ANALOG VIDEO CONVERTER**



# DESCRIPTION

The Extron **SDI-AVR 100** is a 10 bit Serial Digital Interface (SDI) to analog video signal converter. The SDI-AVR 100 is ideal for A/V systems that use a mix of analog and SDI sources and helps integrate SDI sources into an analog video environment. Example applications include presentations utilizing disk recorders, broadcast production, non-linear editing stations, and rental and staging events.

The SDI-AVR 100 accepts a 4:2:2 (270 mbs), ITU-R BT 601 input and provides equalization for the input and a re-clocked loop-through. It outputs analog composite and S-video (available simultaneously) and also allows the user to select between component, RGsB, RGSB, or RGBHV for the third output. The SDI-AVR 100 outputs NTSC, PAL, or Betacam component levels and includes an internal color bar generator.

# FEATURES

- Accepts 4:2:2 SDI in NTSC and PAL (525/60 and 625/50) standards
- 10 bit processing
- Auto-detects input format and de-serializes 270 Mbps digital stream
- Auto equalization provided for input
- One re-clocked SDI loop-through
- Outputs composite video and S-video (Y/C) simultaneously, third output available as component video (Y, R-Y, B-Y) or RGB (RGsB, RGSB, or RGBHV)
- RGB or Betacam output, switch-selectable
- NTSC or PAL color bar test pattern
- 1/2rack width, 1U high metal enclosure
- 100-240VAC, 50/60 Hz, auto-switchable, internal power supply

# SPECIFICATIONS

## Video

- Differential phase error ..... <1°
- Differential gain error ..... <1%

## Video input and loop through

- Number/signal type ..... 1 SDI (4:2:2, SMPTE 259M-C)
- Connectors ..... 1 female BNC (SDI input)  
1 female BNC (SDI relocked loop through)

NOTE: The equalization applied to the SDI-AVR 100's looped through signal is sufficient for a coaxial cable length of at least 1,000 feet (305 meters) of Extron SHR cable or Belden 8281 cable.

- Minimum/maximum level(s) ..... 0.5V to 1.0V p-p with no offset
- Impedance ..... 75 ohms
- Return loss ..... >-15dB @ 0 MHz to 270 MHz
- Maximum DC offset ..... ±0.5V

## Video processing

- Encoder ..... 10 bit digital
- Frequency response ..... Luminance 0 to 5.75 MHz, ±0.5dB
- Chroma ..... 0 to 2.75 MHz, ±0.5dB
- S/N ..... >70dB
- RGB matrix error ..... <1%

## Video signal characteristics

- Dot clock ..... 27 MHz
- Pixel clock accuracy ..... 30 ppm

## Video output

- Number/signal type ..... 1 composite video and 1 S-video, and 1 analog RGBHV/RGSB/RGsB or component video (R-Y, B-Y, Y) (switch selectable)

# SPECIFICATIONS (Cont.)

- Connectors ..... 1 female BNC (composite video)  
1 female 4-pin mini DIN (S-video)  
6 female BNC (RGB, component video, or S-video)
- Level(s) ..... Composite video 1V p-p (nominal)  
S-video 1V p-p/luma, 0.9V p-p/chroma (max.)  
RGB: 0.7V (nominal)  
Component video  
Y = 1V p-p; R-Y, B-Y = 1V p-p (max.)  
Levels depend on the format selected (NTSC, PAL, Betacam).
- Impedance ..... 75 ohms
- Return loss ..... -30dB @ 5 MHz

## Sync

- Output type ..... RGBHV, RGSB, RGsB
- Standards ..... NTSC 3.58, PAL 4.43, Betacam
- Output impedance ..... 75 ohms
- Max. rise/fall time ..... 200 nS
- Polarity ..... Negative

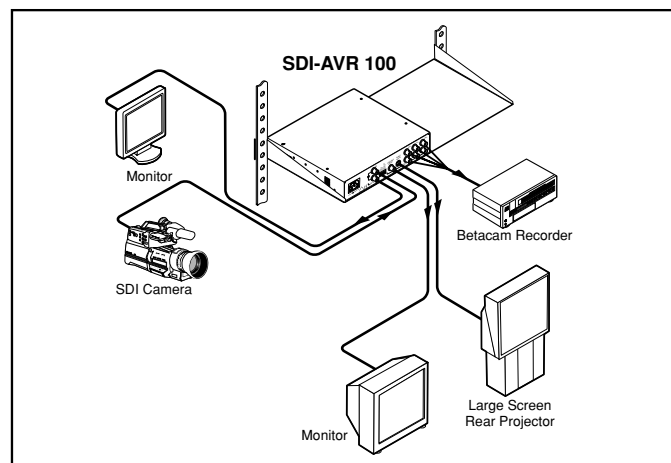
## General

- Power ..... 100VAC to 240VAC, 50/60 Hz, 6 watts, internal, auto-switchable
- Temperature/humidity ..... Storage -40° to +158°F (-40° to +70°C) / 10% to 90%, non-condensing  
Operating +32° to +122°F (0° to +50°C) / 10% to 90%, non-condensing
- Rack mount ..... Yes, with optional rack shelf, part #60-190-01
- Enclosure type ..... Metal
- Enclosure dimensions ..... 1.75" H x 8.75" W x 8.0" D (1 rack unit high, 1/2 rack unit wide)  
4.5 cm H x 22.2 cm W x 20.3 cm D (Depth excludes connectors.)
- Shipping weight ..... 5 lbs (2.3 kg)
- Vibration ..... ISTA/NSTA 1A in carton (International Safe Transit Association)
- Approvals ..... UL, CUL, CE
- MTBF ..... 30,000 hours
- Warranty ..... 2 years parts and labor

## Part Number

- SDI-AVR 100 ..... 60-400-01

## APPLICATION DIAGRAM



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