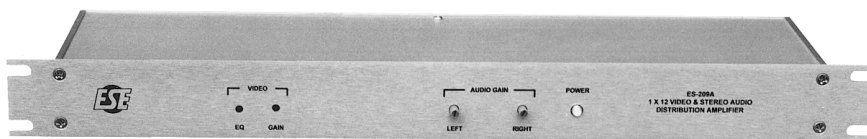


# 1 X 12 & 1 X 24 VIDEO/STEREO DISTRIBUTION AMPLIFIERS

The **ES-209A** is a 1 x 12 Video Distribution Amplifier combined with a 1 x 12 Dual Audio Distribution Amplifier. The **ES-224** is very similar except that it is a 1 x 24 version. They are primarily designed to meet the needs of tape duplication systems as well as installations that require Audio and/or Video Distribution. Front panel-mounted controls are provided to adjust Video (EQ & Gain) and Audio (Left & Right Gain) output signals.

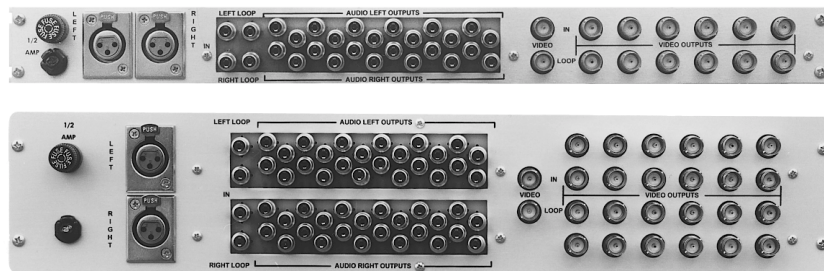
## Features:

- Left & Right Channel Audio Gain Controls
- Professional Audio & Video Quality
- Transformerless Audio DA
- 1 x 12/24 Video DA
- 1 x 12/24 Stereo DA
- Video EQ & Gain Controls
- Loop-thru Audio & Video Inputs
- Accepts Balanced or Un-Balanced Audio
- Internal Linearity Control
- Rack Mount Enclosure



The video section of the **ES-209A** and **ES-224** may be used for signal distribution and for signal conditioning. They are capable of delivering the very highest professional video quality. The Equalization Control (EQ) may be used to boost chroma in recording if desired. The Gain Control provides an output from .5 Vpp to 1.5 Vpp (with 1 Vpp input).

The audio portion of the unit is designed to create 12/24 identical copies of the stereo input drive signals. Response, distortion and noise specifications make the stereo performance of the DA ideal for tape duplication or signal distribution. The audio DA input is balanced or un-balanced (hi-impedance), while the outputs are medium, and will drive either 600Ω or hi-impedance inputs.



## Specifications

### VIDEO

- Input:** 75Ω loop-thru, 1.0 Vpp nominal video, 15pf parallel
- Response:** 10 Hz - 10 MHz, +/- .5dB
- Propagation Delay:** 3ns
- Differential Gain:** < .2%
- Differential Phase:** < .2° (internal null pot)
- S/N Ratio:** < 62dB below 1 Vpp output
- Gain:** -2dB to +3dB
- Equalization:** Will roll down 1dB or up 7dB at 3.58 MHz; EQ control compensates up to 1000' of RG-59
- Output Isolation:** 45dB between outputs
- Output:** 1.0 Vpp video, blanking at 0V DC. 12/24 identical outputs
- Source:** 75Ω
- Connectors:** BNC, 14/26

### AUDIO

(Dual Channel)

- Input:** Balanced or Unbalanced, 2KΩ - 25KΩ
- Gain:** +18dB maximum
- Output Level:** +21dB Maximum
- Output:** 600Ω Unbalanced
- Hum and Noise:** -112dB typical under +8dBm output -84dB min. under -20dBm output
- Response:** Within 0.2dB, 20-20,000 Hz  
Within .5dB 2-35,000 Hz
- Distortion:** Less than 0.1% at 0dBm output
- Connectors:** 28/52 RCA, 2 XLR

### GENERAL

- Dimensions:** 19" Rack x 1.75" High x 5" Deep (**ES-209A**)  
19" Rack x 3.5" High x 5" Deep (**ES-224**)
- Power:** 117 VAC 50/60 Hz, 5 W
- Options:** J, UL

