

Model 85 AES/EBU Digital Audio Distribution Amplifier

Designed for a wide variety of recording, production, broadcast, and duplication applications, the Model 85 has two AES/EBU inputs and eight AES/EBU outputs.

The Model 85 provides two AES/EBU digital audio inputs and eight AES/EBU outputs. Each of the eight outputs provides a fully isolated reproduction of either input. Source selection is provided by front-panel DIP switches. The Model 85 allows AES/EBU signals to be distributed to multiple inputs (receivers) without incurring data transmission errors.

A typical application would use the Model 85 to distribute the AES/EBU output of a digital audio workstation (DAW) to devices such as DAT or CD recorders, audio/video storage systems, tie lines to other facilities, etc.

Single rack space mounting, standard XLR-type connectors, and status LEDs make installation of the Model 85 a simple job. The unit's input power is factory configured for 100, 120, or 220/240 V operation. Components and construction standards make the Model 85 suitable for continuous operation, even for on-air broadcast applications.

The Model 85 AES/EBU Digital Audio Distribution Amplifier is designed by Studio Technologies as part of its Studio Tools group of audio support products.

Inputs and Outputs

Two AES/EBU Inputs Each input provides transformer coupling and DC voltage blocking. Status indicators light whenever digital information is present on their respective input.

Eight AES/EBU Outputs The Model 85 contains eight independent AES/EBU output sections. The rugged output circuits feature

transformer coupling. For flexibility, each of the eight outputs can individually select input A or B as its source. This allows the Model 85 to act as a single 1x8 distribution amplifier (DA), or two fully independent DAs. Example configurations include creating a dual 1x4 DA, or a combination 1x3 DA and 1x5 DA.

Technical Background

The original AES/EBU specification (AES3-1985) called for a single transmitter to drive up to three receivers. In practice this proved to make data transmission susceptible to errors as an impedance mismatch can be created. The revised edition of

the specification (AES3-1992) advises that a single transmitter should drive only a single receiver. The Model 85 addresses this requirement in a simple, reliable manner. Up to eight identical, but fully isolated, "copies" of the original signal are created.

No Data Manipulation

The Model 85 performs minimal processing to the AES/EBU digital audio data. The signal is received, converted to a standard logic signal, then retransmitted using rugged driver circuits. No timing "correction" is performed. No data is manipulated, added, or changed. The Model 85 assumes that your digital signals

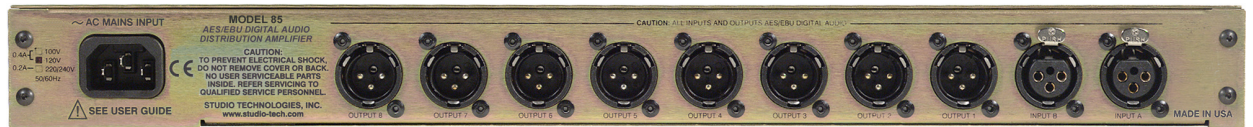
have been carefully created and simply need to be distributed to multiple inputs. In an age when everyone wants to "fix" your digital signals the Model 85 takes a "hands off" approach. With a nominal 60 nanosecond input to output delay, the outputs are essentially identical to the inputs.

Features

- Transformer-coupled inputs and outputs
- Flexible configuration options
- Status indicator lights
- XLR-type connectors
- Single rack-space mounting
- Rugged construction

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Model 85 Specifications

Inputs: 2

Format: AES/EBU

Type: capacitor isolated, transformer coupled

Receiver Equalization: none

Impedance: 110 ohms

Amplitude Range: 0.3 to 7 Vp-p

Outputs: 8

Format: AES/EBU

Type: transformer coupled

Impedance: 110 ohms

Level: 3.0 Vp-p, terminated, nominal

Input-Output Time Delay: 60 nSec, nominal

AES/EBU Performance Compatibility: designed for compliance with AES3-1992 (ANSI S4.40-1992), AES Recommended practice for digital audio engineering—Serial transmission format for 2-channel linearly represented digital audio data

Supported Sample Rates: 32 kHz to 192 kHz

Connectors:

AES/EBU: 3-pin XLR-type, female (2), male (8)

AC Mains: standard 3-blade IEC-type

AC Mains Requirement: 100, 120, or 220/240 V, $\pm 10\%$, factory configured, 50/60 Hz

Dimensions (Overall):

19.00 inches wide (48.3 cm)

1.72 inches high (4.4 cm)

6.65 inches deep (16.9 cm)

Mounting: one space in a standard 19-inch rack

Weight: 7.0 pounds (3.2 kg)

Specifications subject to change without notice.

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