

Audio Merger

FOX ADS31



Product Introduction

This is a professional-grade 3-in-1 audio mixer designed for broadcast, live sound, recording studios, and AV system integration. The device supports merging three independent input signals (balanced or unbalanced line level) into a single output, ensuring lossless blending and low-noise transmission. Featuring a built-in isolation transformer, it effectively eliminates ground loop interference and supports long-distance cabling (>100 meters). Offering superior balance between flexibility and universal connectivity, this device is ideal for multi-source audio mixing scenarios such as conference systems or multi-device monitoring setups.

Product Features

- ✦ 3-in-1-out merging: Three XLR inputs to a single XLR output, supporting line-level or mic-level signals with no signal attenuation or distortion;
- ✦ Noise Isolation: Built-in isolation transformer with >50 dB ground loop suppression, eliminating hum and EMI interference;
- ✦ Professional Connectivity: XLR balanced inputs, for seamless integration into PA or AV systems;
- ✦ Zero-Latency Design: 0 transmission latency ensures real-time synchronization;
- ✦ Power Requirements: No power supply required;
- ✦ Rugged Construction: Compact metal housing, suitable for environments from 0°C~50°C.

Specification

Category	Parameter Item	Parameter Description
Audio Performance	Input Channels	3 x XLR Female connectors (Balanced/Unbalanced)

	Output Channels	1 x XLR Male connector (Balanced/Unbalanced)
	Frequency Response	10 Hz~20 kHz (± 0.5 dB)
	Total Harmonic Distortion + Noise (THD+N)	< 0.03% (1 kHz, 0 dBu)
	Signal to Noise Ratio (SNR)	> 100 dB (A-weighted)
	Dynamic Range	> 110 dB
	Maximum Input Level	+26 dBu (Balanced); +20 dBu (Unbalanced)
	Maximum Output Level	+26 dBu (Balanced)
	Crosstalk	1:1 professional-grade transformer
Isolation and Noise Suppression	Isolation Type	> 1 kV (input/output)
	Isolation Voltage	> 50 dB (50/60 Hz)
	Ground Loop Noise Rejection	Built-in filter circuit (>40 dB attenuation)
	EMI/RFI Shielding	≥ 100 m (balanced output, no attenuation)
	Maximum Transmission Distance	3 x XLR female connectors (balanced); optional 3.5mm adapter and 3 x 1/4" TRS (balanced/unbalanced);
Interfaces and Connections	Input Connector Standard:	1 x XLR male connector (balanced); 1 x 1/4 " TS (unbalanced); optional RCA 1 x 1/4" TS (unbalanced)
	Output Connector Standard:	Input: 600Ω (balanced) / 600Ω (unbalanced); Output: 600 Ω (balanced)
	Digital Interface	None (pure analog design)
	Impedance (Input/Output)	70 mm x 36 mm x 100 mm

Physical and Environmental	Dimensions (L x W x H)	0.45 kg
	Weight	3 x XLR female connectors (balanced/unbalanced)
	Enclosure Material	Metal housing, blue painted
	Operating Temperature	0°C~50°C
	Storage Temperature	-20°C~70°C
	Humidity	5%~95% (non-condensing)
Power and Safety	Power Input	No adapter required, No power supply required
	Power Consumption	< 2 W (typical, all inputs active)