

Unbalanced AES Audio Monitoring & Distribution Amplifier

Model 500AMDA-AESU

The 500AMDA-AESU is a five output reclocking and auto equalizing Audio Monitoring & Distribution Amplifier for unbalanced 75Ω AES signals. It is also a high quality 24-bit audio DAC. The 500AMDA-AESU automatically equalizes up to 1500m of Belden 1694A coax and provides reclocked outputs. The 500AMDA-AESU converts one AES/EBU digital signal to 2 balanced analog audio outputs. The input sample rates supported are 44.1kHz and 48kHz. Analog audio output levels may be set individually from the front panel.

Evertz's SoftSwitch™ technology mitigates audio pops during hot-switching the AES input and maintains consistent audio sequences and formatted output. It ensures that AES devices downstream will receive properly formatted AES signals always. Hence downstream devices are protected from "hot switched" upstream AES routers. SoftSwitch™ is an option on the XXXXX.

Level control is provided via a card edge toggle. The full scale digital signal can be calibrated to product analog peak levels ranging from 12dBu to 24dBu with 0.1dB resolution. The 500AMDA-AESU card edge LED indicators provide quick and accurate assessment of the incoming signal integrity. Balanced analog audio is provided via a terminal strip adapter.

The 500AMDA-AESU is housed in the 3RU 500FR **exponent** frame that will hold up to 16 modules.

Features

- 24-bit, high-quality D/A conversion
- 44.1 and 48kHz sampling rates supported
- 0dBFS programmable from 12dBu to 25dBu
- Support for 2 channels of balanced analog audio (1 AES/EBU)
- Optional SoftSwitch™ technology for protection against hot-switch formatting errors & provides audio pop mitigation

Inputs:

- SMPTE 276M standard for AES audio on 75Ω coax
- EQ and reclock provide extended cable length compensation (>1500m)

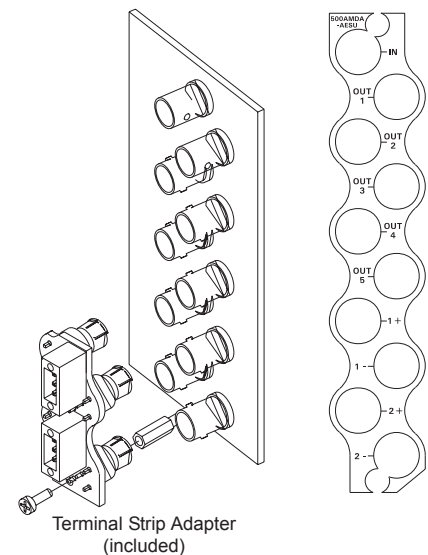
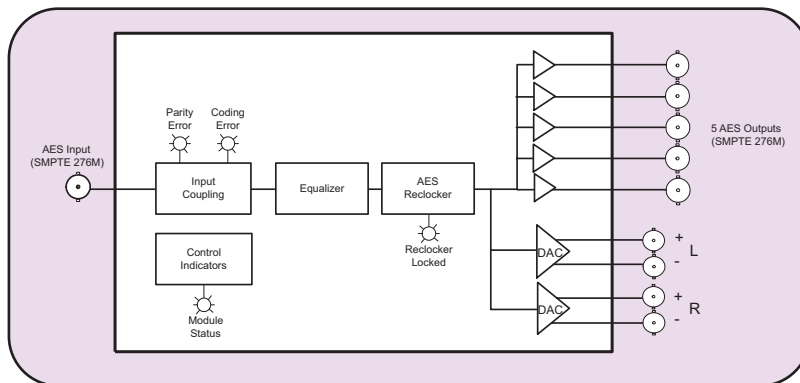
Outputs:

- Five 75Ω coax outputs
- 2 balanced analog audio outputs

Card Edge LEDs:

- Module Health Status
- Error LED indication for input PLL out of lock, parity error or biphas coding error
- Reclocker locked

500AMDA Block Diagram



Specifications

AES Input:

Standard:	SMPTE 276M
Number of Inputs:	1
Connector:	BNC input per IEC 169-8
Input Level:	1V p-p
Coupling:	Transformer
Input Impedance:	75Ω
Return Loss:	>25dB 100kHz to 6MHz
Equalization:	Automatic to 1500m with Belden 1694A (or equivalent) @ 48kHz AES signal
Sampling Frequency:	44.1kHz and 48kHz

AES Output:

Number of Outputs:	5 Unbalanced AES
Connector:	BNC per IEC 169-8
Output Level:	1V p-p
Output Impedance:	75Ω
Return Loss:	>25dB 100kHz to 6MHz

Analog Audio Outputs:

Number of Outputs:	2
Connector:	Two 3 pin removable terminal strips (screwdown adapter module included)
Output Impedance:	66Ω
Output Loads:	Hi-Z or 600Ω
Peak Conversion Level:	0dB FS => 12 to 25dBu (user settable)

Frequency Response:

Dynamic Range:	< ± 0.05dB (20Hz to 20kHz)
THD+N:	24 bits <0.001% (>100dB) @ 20Hz to 20kHz, @-1dB FS, unweighted
Crosstalk:	110dB (20Hz to 20kHz)
DC Offset:	< ± 30mV
SNR:	> 110dB "A" weighted
Inter-Channel Phase Error:	< ± 1° (20Hz to 20kHz)
I/O Delay:	0.92m Sec

Ordering Information:

500AMDA-AESU

Ordering Options:

+SS

Enclosure:
500FR
S501FR

AES Monitoring Distribution Amplifier (5 AES out & 2 balanced analog out)

Optional SoftSwitch™

exponent
Compact High Density Distribution Frame
Standalone enclosure