

# DIGITAL TO ANALOGUE BOX

## DTOA-1

**BCD**  
AUDIO

Broadcast Audio  
Custom Manufacture  
Design and Consultancy

BCD 09/10/2007

The DtoA-1 is a top quality digital to analogue converter, housed in our black-box. Stereo or twin audio is recovered from an AES-3 signal at up to 200KHz sample rate.



### Features

AES-3 INPUT 110R on XLR input.

Stereo balanced audio output on 3pin XLR's.

DC inlet on 2.5mm barrel socket.

Lock indicator LED.

### Specification – Aes input

Transformer balanced AES-3 input on XLR.  
Input impedance 110R.  
Sample rates 24KHz up to 200KHz.

### Specification – Analogue outputs.

Balanced dual or stereo outputs on 3-pin XLRs.

Maximum output level +26dBu.

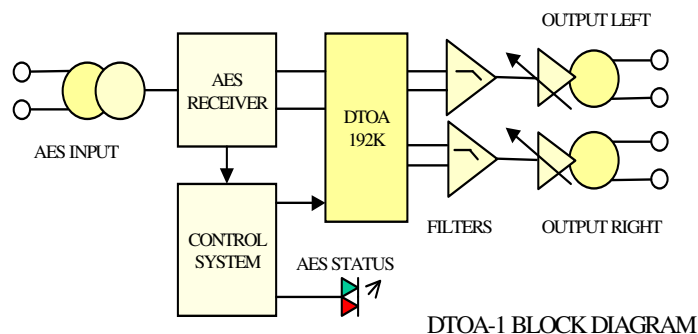
Normal calibration 0dB for -18dBFS signal.  
Internal presets allow for alternative calibrations.  
Output noise -92dB rms 20-20kHz bandwidth, referenced to 0dB calibration.  
Distortion better than 0.003% at maximum output and reference level.  
Output impedance 50R.  
Output balance better than -40dB.  
Left-right crosstalk better than -95dB @ 10KHz.

### DC power requirements

10 to 30V DC on 2.5mm barrel socket.  
+ve on centre pin.  
Recommended voltage range 12V to 24V.  
Current consumption at 12V DC 150mA.

### Description

The transformer balanced AES-3 input is taken to a 192KHz compatible AES receiver and digital to analogue converter.



DTOA-1 BLOCK DIAGRAM

The control system automatically configures the converter for the correct rate, and indicates lock status on the bi-colour LED. The LED indicates RED for no signal or error, ORANGE for signal OK but muted or GREEN for signal good.

Balanced third-order filters reconstruct the analogue signal to high precision, and electronically balanced output stages complete the signal chain.

The floating power supply accepts a wide range of DC inputs, and produces all of the required voltage rails.