



1. Introduction

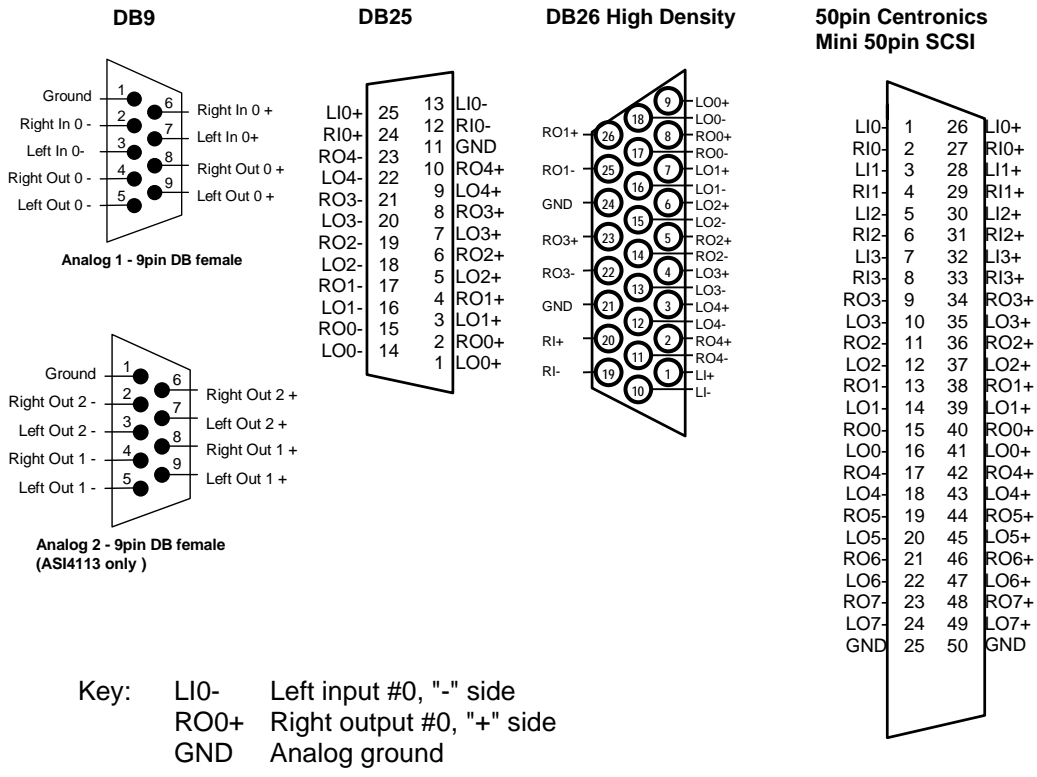
This application note details how to wire AudioScience audio adapter analog and digital connectors. Both balanced and unbalanced options are discussed.

2. Analog Connectors

There are four different types of connectors used for analog audio I/O:

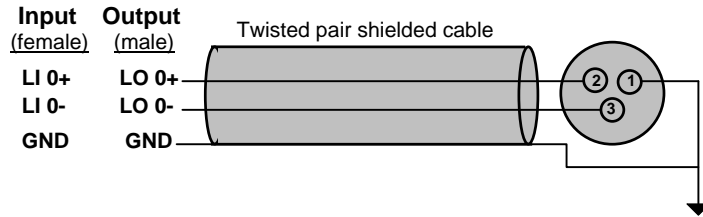
- DB9 ASI41xx series, ASI5111/5211
- DB25 ASI450x series (OEM only)
- DB26 (High Density) ASI4215
- 50pin Centronics ASI43xx series, CBL1004
- High Density 50pin ASI500x, ASI504x, ASI5x20, ASI554x, ASI564x, ASI6xxx, ASI65xx, and ASI66xx series, CBL1044, CBL1004

All the analog signals are balanced and so consist of a "+" and "-". The actual signal is the difference between the + and -.



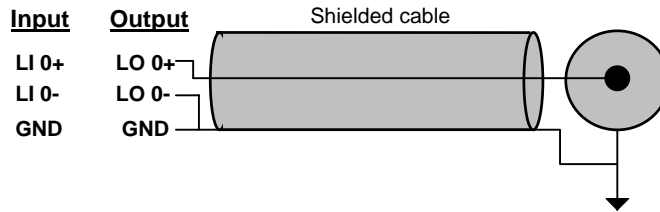
2.1 Balanced Operation

For a balanced output, the following connections are made to an XLR connector (using Left input/output #0 as an example):



2.2 Unbalanced Operation

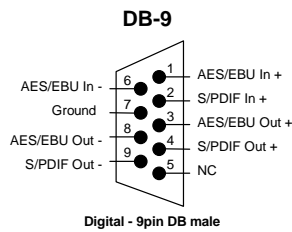
For unbalanced operation, connect the "-" side of the signal to ground. The "+" side becomes the signal. This applies to both an input and an output. You will not damage the output driver of the adapter by connecting the "-" signal to ground; the driver is designed to operate in this fashion (however, if you connect both + and - to ground then you may cause damage).



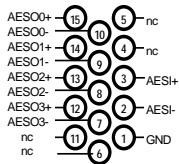
3. Digital (AES/EBU - S/PDIF) connectors

There are 4 types of connectors:

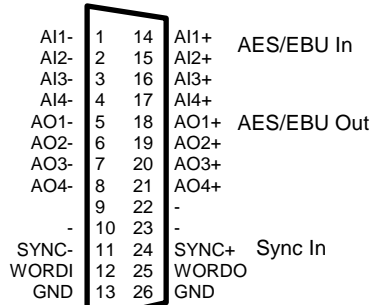
DB9	ASI41xx, ASI45xx series, ASI5111/5211
DB15 (High Density)	ASI4215
High Density 26pin	ASI5002, ASI504x, ASI564x, ASI6xxx, ASI65xx, ASI66xxseries,
	CBL1101
Centronics 50pin	CBL1101, CBL1144



DB15 High Density

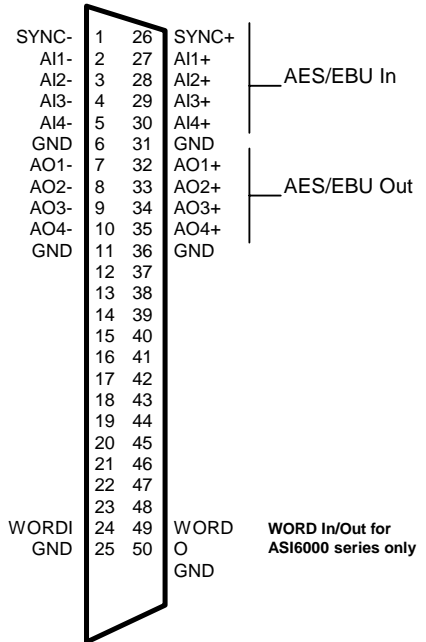


High Density 26pin



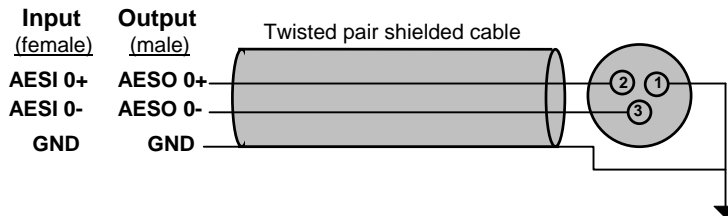
WORD In/Out and SYNC +/- for ASI6000 series only

Centronics 50pin



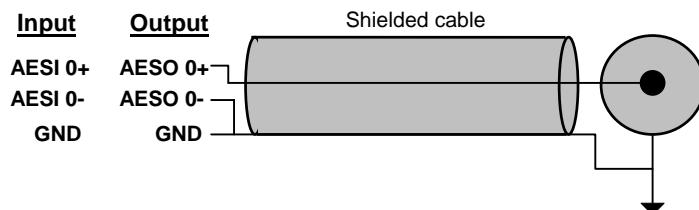
3.1 AES/EBU Balanced Operation

For a AES/EBU input or output, the following connections are made to an XLR connector (using AES input/output #0 as an example):



3.2 S/PDIF Unbalanced Operation

For S/PDIF operation, connect the "-" side of the signal to ground. The "+" side becomes the signal. This applies to both an input and an output. You will not damage the output driver of the adapter by connecting the "-" signal to ground; the driver is designed to operate in this fashion (however, if you connect both + and - to ground then you may cause damage).

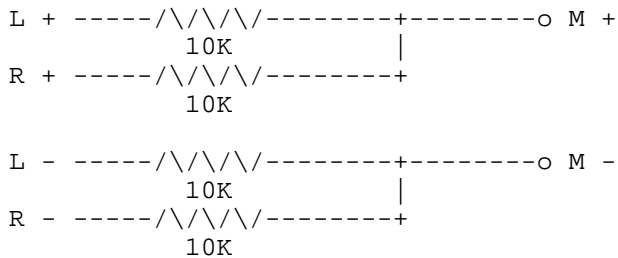


4. RJ-45 connector for BOB1025

RJ-45 Pin Number	Color Pair	Channel
1	White/Orange	L+ / AES+
2	Orange/White	L- / AES-
3	White/Green	R+
4	Blue/White	GND
5	White/Blue	nc
6	Green/White	R-
7	White/Brown	15V-
8	Brown/White	15V+

5. Combining Left and Right channels with resistors to create a single, mono channel.

Join left and right using 10K resistors:



[end]