



# ASI4501

## 1-Record/ 4-Play MPEG Audio Adapter

SGT APR-07-2004

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### 1. Features

- PCI Bus based adapter.
- (5) Streams, (1) record/ (4) play, in MPEG (4) streams will be available simultaneously.
- Streams maybe defined as mono or stereo.
- Each stream will have independent sample rate, format, channels.
- Formats supported will be 8bit PCM8, 16bit PCM, MPEG1 Layer I and II.
- (1) Physical (analog) stereo input, (1) digital input, (5) physical (analog) stereo outputs, and (1) digital output.
- Analog inputs/outputs are balanced with software adjustable levels ( 0 to +20dBu max.)
- Digital input/outputs support both AES/EBU and SP/DIF interface formats.
- Software selectable sample rates (VFO requirement) from 8kHz to 48kHz with 250 Hz resolution, in PCM and MPEG play back.
- MPEG will record (3) Software selectable sample rates, 32kHz, 44.1kHz, and 48kHz.
- 4 Mbyte on board RAM (using SIMM socket for upgradeability) for audio data buffering.
- Polled or interrupt driven.
- Mixer allows any or all (4) play back streams to be directed to any or all (6) outputs.
- Dynamic range and signal to noise ratio greater than 90 dB.
- Software readable serialization.
- The A4501 adapters will carry the Scott Studio name as specified by Scott Studios.
- Watch dog functionality allowing hardware reset of the PC (provided via 2 pin header).
- (16) TTL logic inputs and (16) TTL logic (open collector) outputs available via 40 pin header on adapter.
- Analog input/output connector is a 25 Pin Din.
- Digital input/output connector is a 9 Pin Din.
- In the case of power loss the record input will be connected to the physical channel (1) output via relay.
- Low level driver software (HPI) will allow adapter operation under Windows NT.

Added the following in meeting on November 17, 1996

- Header for future APT daughter board.
- On board master clock

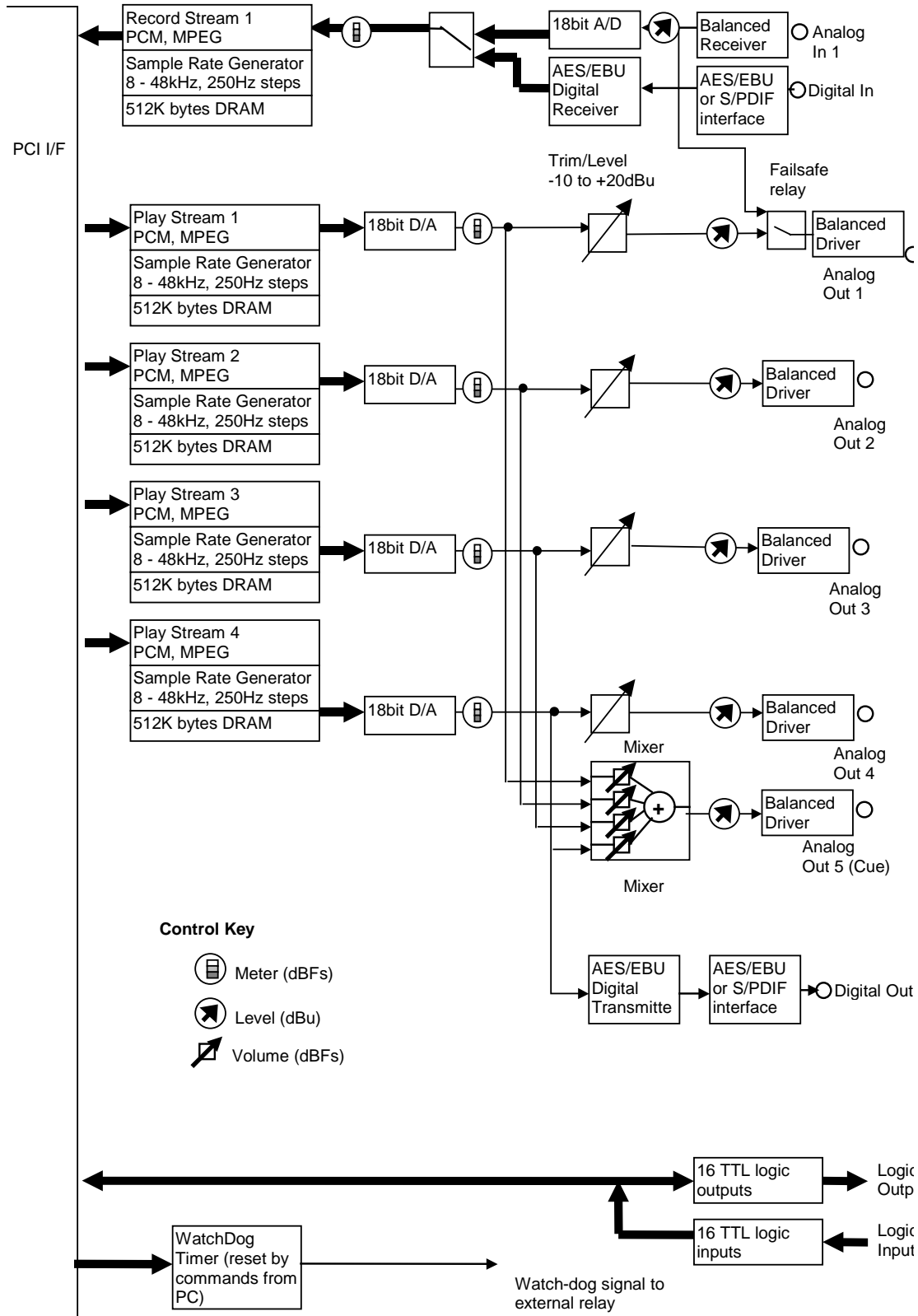
Added at request of Micheal Fancher, April 1997

- Autofade for volume controls, implemented on DSP

Functionality change, July 14,1997

- LineOut0 through 3 are connected to OutStream0 through 3 respectively. This means there is no mixing for LineOut0 through 3, although volume control (for the one OutStram) and level control are still available

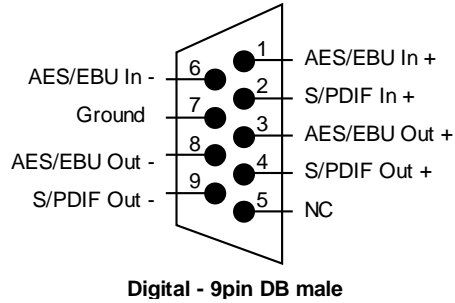
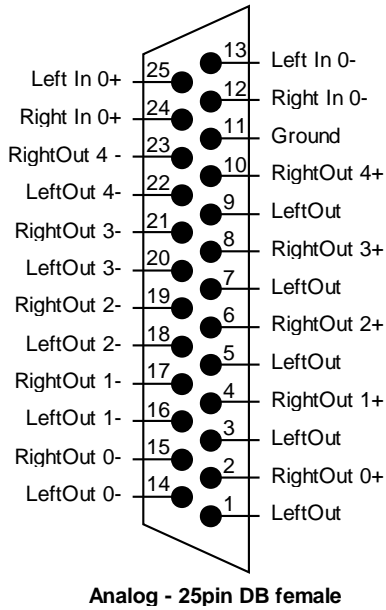
## 2. Block Diagram - ASI4501



### 3. Connectors

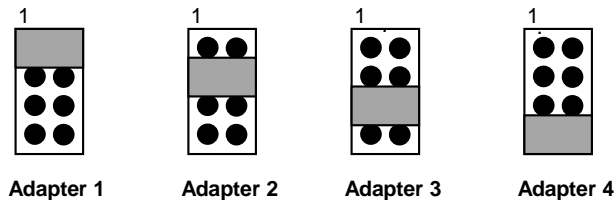
#### 3.1 Analog and Digital Audio

The connector used for analog I/O is a 25pin DB female mounted on the bracket of the adapter. The connector used for digital I/O is a 9 pin DB male. Their pinouts are as follows:



#### 3.2 Adapter Number (J4)

The adapter number is selected by putting a jumper on J4 in one of the following positions:



### 3.3 Logic Outputs and Inputs

The Logic inputs and outputs are present on a 40 pin header (J5). The outputs are active low open-collector. They can sink 24mA. The Logic inputs are active high and present one TTL load.

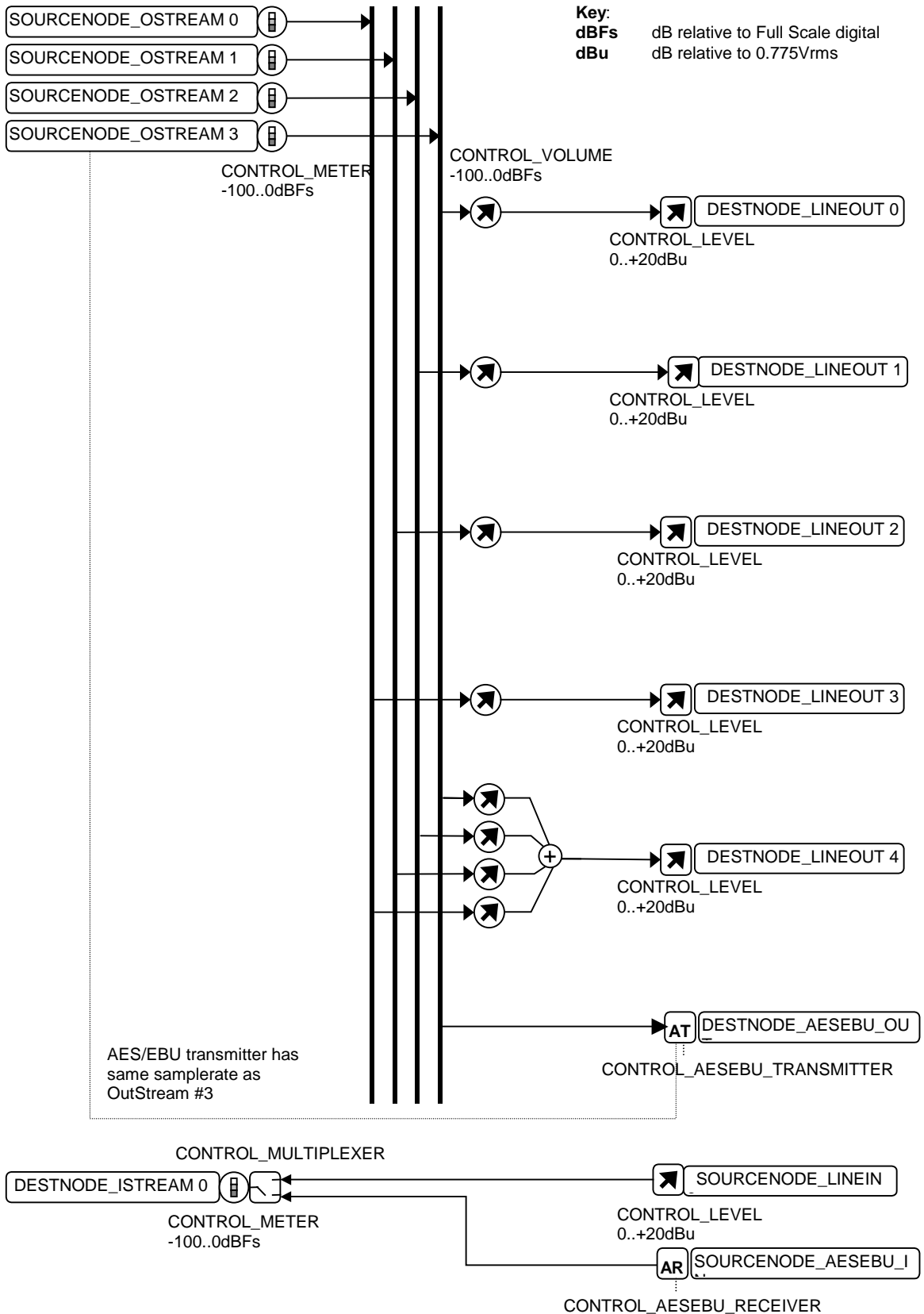
Ground	1	2	Logic Output 0
Logic Output 1	3	4	Logic Output 2
Logic Output 3	5	6	Logic Output 4
Logic Output 5	7	8	Logic Output 6
Ground	9	10	Logic Output 7
Logic Output 1	11	12	Logic Output 9
Logic Output 1	13	14	Logic Output 11
Logic Output 1	15	16	Logic Output 13
Ground	17	18	Logic Output 14
WatchDog	19	20	Ground
Ground	21	22	Logic Input 0
Logic Input 0	23	24	Logic Input 2
Logic Input 0	25	26	Logic Input 4
Logic Input 0	27	28	Logic Input 6
Ground	29	30	Logic Input 7
Logic Input 8	31	32	Logic Input 9
Logic Input 10	33	34	Logic Input 11
Logic Input 12	35	36	Logic Input 13
Ground	37	38	Logic Input 14
Logic Input 15	39	40	Ground

### 3.4 WatchDog

The WatchDog output is active low TTL open-collector, which can sink 24mA.

WatchDog-	1	2	Ground
	3	4	Ground
	5	6	Ground
	7	8	Ground

## 4. Mixer Map



[end]