

AIF-4S – 8 Port / 4 Services AES Audio Module

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The bi-directional AIF-4S module transmits and receives four channels of AES audio.

KEY FUNCTIONS:

- External interface to AES user circuits
- Electrical Interface
- Transparent connectivity with Robust FEC
- Hitless Path Failure Protection

KEY FEATURES:

- 4 Channel I/O
- AES 75ohm Unbalanced Interface containing four input channels and four output channels
- 15 pin D-Sub connector
- Tx & Rx in one Module

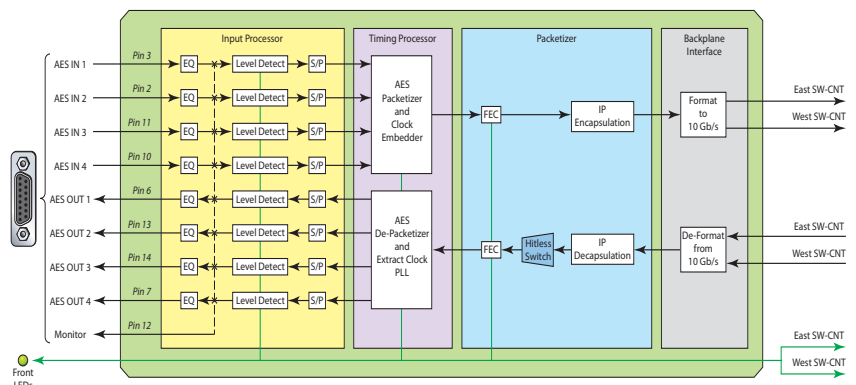
APPLICATIONS:

- Carrier Class Media Networks
- High Performance Studio Interconnects
- Flawless Contribution Audio Transport
- Reliable Content Delivery Systems
- Integrated Live, Recorded and File-Based Communications

The bi-directional AIF-4S module transmits and receives four channels of AES audio. As a source, incoming digital audio signals delivered to the AIF-4S card are converted into Ethernet packets and sent to the MD8000 Switch Controller (SW-CNT) module for forwarding to the wide area network. In the reverse direction, received Ethernet packets containing audio information are delivered to the AIF-4S card, converted back to their native AES audio format, and delivered to the attached audio equipment.

The AIF-4S operates in one of two different modes. Mode 1 allows independent encapsulation and addressing of each AES audio stream. Single AES streams can be sent to up to 4 destinations and received from up to 4 origination points. Mode 2 is provided for multi-channel applications like 5.1 audio. The AIF-4S can be configured to group 3 AES audio channels into a single Ethernet stream. This provides phase lock and equal latency for each of the channels. In this mode of operation, a single Ethernet stream is used for 3 AES signals and a second stream for the 4th AES signal. Mode settings can be applied uniquely to the transmitted and received signals.

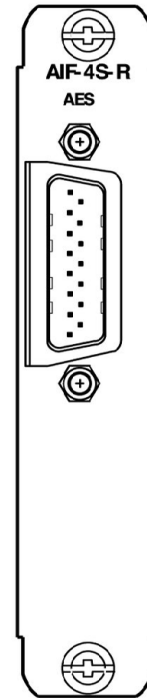
To improve signal transport resiliency and reliability, the AIF-4S module supports both Forward Error Correction (FEC) and Lossless/Hitless path protection switching. The front panel of the AIF-4S module includes a comprehensive set of LEDs for monitoring the status and health of incoming and outgoing audio streams.



MD8000 - AIF-4S – 8 Port / 4 Services AES Audio Module Block Diagram

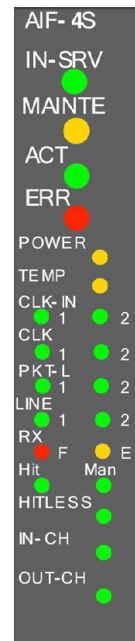
NAME	TYPE	PIN	DESCRIPTION
AES	D-Sub (75 Ohm)	1	GND
		2	AES / EBU Input Channel 2
		3	AES / EBU Input Channel 1
		4	GND
		5	GND
		6	AES / EBU Output Channel 2
		7	AES / EBU Output Channel 4
		8	GND
		9	GND
		10	AES / EBU Input Channel 4
		11	AES / EBU Input Channel 3
		12	AES / EBU Input Monitor Output
		13	AES / EBU Output Channel 2
		14	AES / EBU Output Channel 3
		15	GND

Rear Board Connectors



NAME	CONDITION TO ILLUMINATE
IN-SRV	● Status Monitored
MAINTE	● Under Maintenance
ACT	● Normal Operation
ERR	● Board Failure Detected
POWER	● Board Power Voltage Low (Warning)
TEMP	● Board Temperature High (Warning)
CLK-IN/2	● Unused
CLK1/2	● Unused
PKT-L1/2	Input stream of the selected channel ● 1: Packet input from Line 1 ● 2: Packet input from Line 2
LINE1/2	SWCNT for the selected channel 1: SWCNT #1; 2: SWCNT #2
RX-F/E	● RX-F: Uncorrectable Error Detected ● RX-E: Correctable Error Detected
Hit/Man	● Hit: Hitless Switching mode ● Man: Manual Switching mode
Hitless	● Hitless Switching can be enabled
IN-CH	● Input Present at selected channel
OUT-CH	● Output Present at selected channel

Front Panel LEDs



FUNCTIONAL SPECIFICATIONS:

Input	Impedance	75 Ohm, unbalanced	AES-3id-1995
	Return Loss	25 dB or more (0.1 MHz-6.144 MHz)	
	Connectors	D-Sub	
Output	Impedance	75 Ohm, unbalanced	AES-3id-1995
	Return Loss	25 dB or more (0.1 MHz-6.144 MHz)	
	Voltage	1.0 +- 0.2V	
	DC Offset	0 +- 50 mV	
	Connectors	D-Sub	
Monitor Output	Connectors	D-Sub	
Delay		8.6 ms	End to end with or without FCC
Bandwidth		4.8 Mb	FEC Off

ORDERING INFORMATION

MODEL	ORDER NUMBER	ORDER CODE
4-Port bi-directional AES/EBU Audio Interface Module	MD801030	AIF-4Sch-F

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