AVA4-ES100 overview

AuviTran's AVA4-ES100 is a configurable EtherSound analog audio interface with 2 balanced analog audio inputs, 2 balanced analog audio outputs and a SPDIF digital audio output.

AVA4-ES100 is a full ES100 compatible device and can be used without any restriction in any kind of ES100 network.

AVA4-ES100 audio input sensitivity configuration enable a wide range of use from line input up to microphone input.

Built-in AVA4-ES100 parametric equalizers and gain control on all inputs and outputs allow audio quality and intelligibility control in any environment.

AVA4-ES100 is ideal for Public Address and wide distributed digital professional sound network systems.
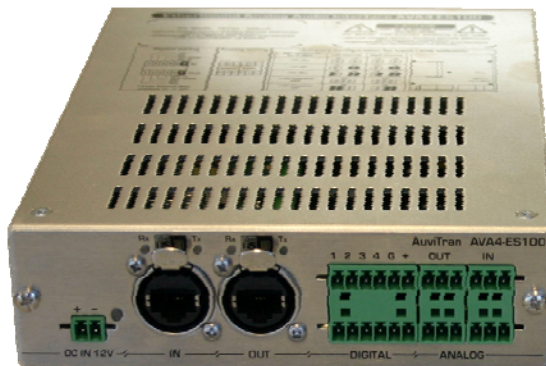
A set of 4 GPI and 4 GPO makes the AVA4-ES100 locally or remotely controllable.

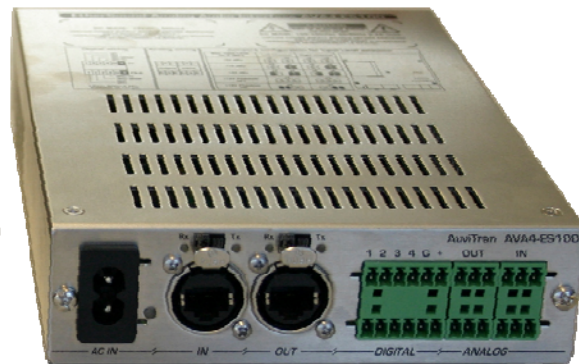AVA4-ES100 integrates a configurable RS232 serial interface.

AVA4-ES100 embeds AuviTran virtual tunnelling mechanism for connecting its local RS232 to another remote serial interface of an AuviTran or Yamaha ES100 device.

Key Features

- 2 x Analog balanced audio inputs to ES100 network

- 2 x Analog balanced audio outputs from ES100 network with 1 dB digital attenuator.

- 1 x SPDIF Digital audio output bridge from ES100 network

- 2 x EtherSound™ ES100 connectors allow the daisy-chaining and ring of multiple AVA4-ES100 devices or another EtherSound™ devices

- 4 x General purpose inputs / outputs for local control and monitoring

- 4x7 Programmable biquads equalizers

- 1 x RS232 configurable interface

- 128 EtherSound channels (64 upstream and 64 downstream) of 24 bits of audio transmission over standard CAT5 Ethernet cable in bidirectional mode or 64 channels in unidirectional mode.

- Remote management with ESMonitor software through the EtherSound Network. Dedicated control page for monitoring and controlling all the device parameters

12V DC power supply version

100-240V AC power supply version

Applications

- Product for fixed installation with high quality Audio distribution, paging and zone management:
  - Stadium, museum and arts centre
  - Opera, theatre dressing room
  - Theme parks and resorts
  - Public Address: fixed sound reinforcement
  - Government administrative offices
  - Exhibition and conference Centres
  - Security, voice alarm system
  - Exhibition and conference Centres

- Product for Transportation public address
  - Train and bus stations terminals
  - Airport facilities and audio distribution
  - Cruise Ships including onboard entertainment
  - Paging system for music and announcements

Mechanical Specifications

145mm x 40mm x 203mm
(5.1" x 1.4" x 7.9")
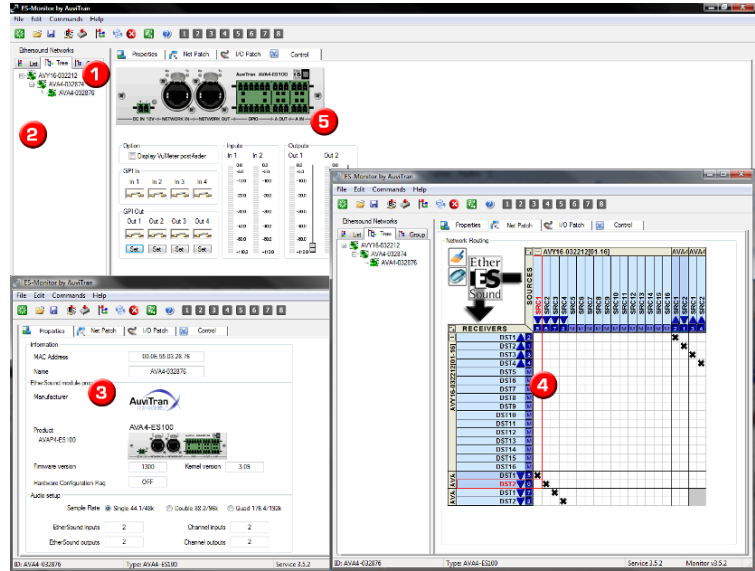1U 1/3rd of 19" rack space:

Audio Distribution over Standard Ethernet: EtherSound™ enhances established technologies to provide easy-to-implement, high-quality audio networks. The patented EtherSound™ protocol provides fully deterministic, very low-latency (125µs plus 1.4µs per additional network node) transmission of synchronized audio channels over standard Ethernet. EtherSound™ provides a cost effective fully digital path between a virtually infinite number of networked audio devices with up to 128 channels of 24-bit digital audio at 48 KHz, with bi-directional status and control data. Off-the-shelf Ethernet components such as 100baseTX switch can be used to extend the number of audio devices, as well as the distance between the devices on the network.

ESMonitor Software overview

Free Download on www.auvitran.com web site, AuviTran's ESMonitor is a Vista/XP application running on a remote PC connected to the Primary Master of an EtherSound™ network segment, through standard Ethernet connections. AVS-ESMonitor offers:

1. Automatic discovery of AVA4-ES100 devices and/or any EtherSound™ compatible device on the segment, as well as automatic hierarchical interconnection between them. It enables the use of aliases to identify the modules, network name and group management.

2. Monitoring of connection, disconnection and error status for all devices and EtherSound™ links.

3. Automatic identification of manufacturer ID, product ID and the Channel I/O.

4. Network Patch assignment of any EtherSound device input to any reachable EtherSound™ device output.

5. Dedicated control page for the AVA4-ES100. Monitor channels status and speakers health. Individual gain, volume and all other specific parameters control.

Technical Specifications

General

Size	1/3 of 1U 19'' rack : 145 mm x 40 mm x 203mm
Power Consumption	5 Watts
Power Supply	12VDC 0.4 A or 100-240VAC
Storage: Temp/Humidity	- 5°C to 70°C / 0% to 95% (non-condensing)
Operating: Temp/Humidity	0 °C to 50°C / 5% to 90% (non-condensing)
Connectors	1x2 pole Euroblock connector (pitch 3.81 mm) for DC power supply; 2x3 pole double row Euroblock connector (pitch 3.81mm) for analog inputs and outputs; 1x6 pole double row Euroblock Connector (pitch 3.81mm) for GPIO. 2x RJ45 connectors for network connections.

Audio Inputs and Outputs

Number of i/o	Up to 4 mono audio inputs and/or outputs software selectable (2xAin+2xAout, 2xAin+1xSPDIF, 2xAout+1xSPDIF)
Number of inputs	2 Analog Inputs Inserted in any of the 128xEtherSound™ channels(64 upstream or 64 downstream)
Number of outputs	2 Analog Outputs , 1 SPDIF output (Stereo) extracted from any of the 128xEtherSound™ channels(64 upstream or 64 downstream) (1) (2)

Audio Specifications

Sampling Frequency	44.1 kHz / 48 kHz
A/D and D/A resolution	24 bits
Frequency response	20Hz – 20Khz @ +/-0,2 dB
Dynamic Range	> 100 dB
Total Harmonic Distortion	< -95 dB
Input Specification	Balanced analog, +22dBu, +10dBV or -44dBu (jumper), <100 Ω Impedance – 12V Phantom power available for microphone
Output Specification	Servo-balanced, +22dBu, 22,2 kΩ Impedance, 127dB/1dB step digital attenuator

GPIO Specifications

GP In	Opto-isolated. +60Vdc maximum input voltage.
GP Out	+60Vdc/1A open drain Darlington per GPO. Internal +12Vdc available (100mA max).
Serial interface	RS232 Rx/Tx serial port interface (3)

(1) SPDIF output replaces GPO2 by jumper selection (2) When only 2 outputs SPDIF and analog output play the same EtherSound channels (3) Serial port replaces GPO3 & 4 by jumper selection

Development and Integration Environment

OS Supported	Windows 32 bits Vista/XP
AVS-ESMonitor	AVS-ESMonitor enables to remotely set, control and monitor an EtherSound network and provides enhanced control pages to manage the AVA4-ES100 specific parameters.
Development Tools	PC Telnet based development tools allowing access and control of all of the EtherSound devices devices' parameters.

Part number

AVA4-ES100	EtherSound 4xAnalog Audio Interface for 12VDC power supply
AVA4-ES100/AC	EtherSound 4xAnalog Audio Interface with integrated AC power supply

www.auvitran.com

Specifications and appearance are subject to change without notice