AVI64-ES100
RME™ I64 format EtherSound Card for multichannel audio networking

AVI64-ES100 overview

AuviTran's AVI64-ES100 card brings EtherSound compatibility to RME™ I64 Slot based products such as DMC-842, Micstasy and ADI8-QS.

Providing two EtherSound connectors, both for very-low latency audio and data transmission, up to 64 audio channels can be sent to and received from a RME I64 Slot based products to any other EtherSound compatible device, over regular CAT5 cables.

The AVI64-ES100 cards offer full network control of audio routing and constant network status monitoring, making it ideal for live professional audio applications.

The integrated I64 midi port is managed by the AVI64-ES100 and allows direct control of the RME™ devices from a remote ESMonitor application or a serial port tunnelling from another ES100 point in the network.


Key Features

■ 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.

■ Up to 64 inputs and 64 outputs depending on hosting RME™ device can be dynamically "inserted" or "extracted" to/from any of the 128 or 64 EtherSound channels.

■ Fully compatible with RME™ I64 format products such as DMC-842, Micstasy and ADI8-QS.

■ 2x EtherSound™ ES100 connectors allow the daisy-chaining of multiple AVI64-ES100 cards or other 3rd-party EtherSound™ devices.

■ Remote management with ESMonitor of integrated I64 Midi Serial Port through EtherSound Network. Control page of DMC-842, Micstasy and ADI8-QS are available for monitoring and controlling these devices..

■ Serial port tunnelling capability to link multi devices or to bridge devices over EtherSound.

Mechanical Specifications

106 mm x 100 mm x 20 mm.
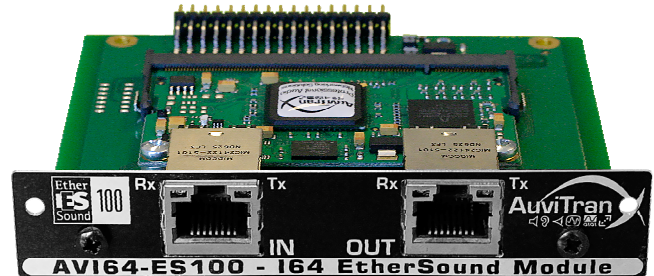
Applications

■ Product for fixed installation with high quality Audio distribution, paging and zone management:
  ♦ Stadium, Opera, theatre, museum and arts centre
  ♦ Theme parks and resorts
  ♦ Public Address: touring and fixed sound reinforcement
  ♦ Broadcasting
  ♦ Government administrative offices
  ♦ Exhibition and conference Centres

■ Product for Transportation public address
  ♦ Train and bus stations terminals
  ♦ Airport facilities and audio distribution
  ♦ Cruise Ships paging including onboard entertainment and leisure centre audio facilities

■ Product for Distribution, routing and control of audio for live and touring installation
  ♦ Live broadcast PA/announcement
  ♦ Live entertainment and concerts
  ♦ TV and Radio Outside Broadcast
  ♦ Electro acoustic music productions
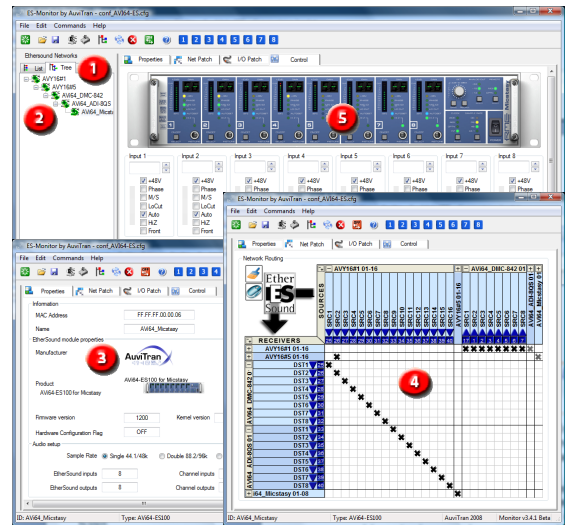 ♦ Itinerant Museums and Theatres

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

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

1. Automatic discovery of AVI64-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. Recognition of the hosting RME™ I64 device: DMC-842, Micstasy or ADI8-QS. Monitor signal meter of all Inputs and outputs and control all parameters of hosting device.

Technical Specifications

General

Size	106 mm x 100 mm x 20mm
Power Consumption	<3 Watts
Power Supply	+5 V, GND
Storage: Temp/Humidity (non-condensing)	- 5°C to 70°C / 0% to 95%
Operating: Temp/Humidity (non-condensing)	0 °C to 50°C / 5% to 90%
Connectors	1x RME™ I64 interface connector, 2x RJ45- connectors (EtherSound™ IN/OUT links),

Audio Inputs and Outputs

Number of inputs	Up to 64x inserted to any of the 128xEtherSound™ channels(64 upstream or 64 downstream)
Number of outputs	Up to 64x extracted from any of the 128xEtherSound™ channels(64 upstream or 64 downstream)

Audio Specifications

Synchronisation PLL locking range	44.1 kHz to 48 kHz ± 5%
Audio format	Linear PCM 24 bits

Synchronization

External clock synchronisation	Automatic from network at 96kHz, 88.2kHz, 48 kHz or 44.1 kHz or manually from i64 devices

Development and Integration Environment

OS Supported	Windows Vista/XP/2000
ES-Monitor	ES-Monitor enables to remotely set, control and monitor an EtherSound network and provides enhanced control pages to manage the DMC-842, Micstasy and ADI8-QS specific parameters.
Development Tools	PC Telnet based development tools allowing access and control of all of the EtherSound devices devices' parameters.

Part number

AVI64-ES100	EtherSound ES100 card for RME™ I64 slot based products