

AVM500-ES Overview

AVM500-ES is an EtherSound Network Matrix in a 19" 1U rack box for linking and routing up to 5 EtherSound Networks together.

AVM500-ES Integrates a full matrix router of 320 x 320 audio channels.

AVM500-ES enhances EtherSound standard daisy chain connection and enables to build star architectures of mixed bidirectional EtherSound or ES100 devices or sub-network.

Multi AVM500-ES can be ringed together using their twin In and Out A Ports to create a redundant ring of EtherSound Networks.

AVM500-ES has an auxiliary power supply input to build safety systems.

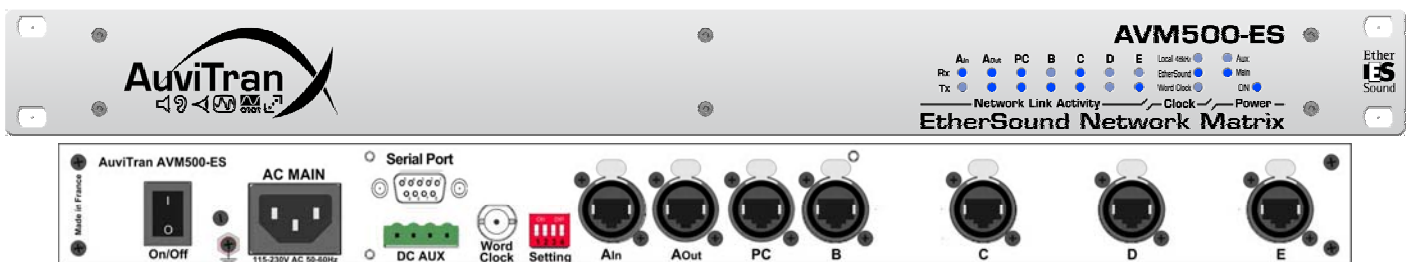
AVM500-ES enables network remote installation monitor and control thanks to its native integrated network status report capability. Any AVM500-ES can be fully monitored and controlled from a PC using ESMonitor software available for free download on AuviTran web site. AuviTran's ES-Monitor, a Windows XP application running on a remote PC connected to the EtherSound™ network, which allows automatic discovery and management of AVM500-ES products.

Mechanical Specifications

19 inches 1U rack box

Key Features

- Enhances existing EtherSound™ devices and systems to Bidirectional Star Architectures
- Build in matrix of 5 x ES-100 EtherSound Networks in a 19" 1U rack
- 5 Bidirectional ES-100 EtherSound Ports: 1 IN, 4 OUT
- Full matrix router of 320 x 320 digital 48kHz 24 bits audio channels
- Twin Ports available for Safety Ring AVM500-ES interconnections
- Multi AVM500-ES can be combined together to map star cabling architecture
- Build In Redundant auxiliary power supply input for secure systems
- Dedicated Ethernet Link for PC remote control and monitoring
- Build in serial port for remotely controlled distributed devices
- Selectable Word Clock source from local 48kHz clock, BNC Word Clock In or EtherSound network



Applications

- Product for distribution, routing and control of Audio for live and touring installations
 - ◆ Live broadcast PA/announcement
 - ◆ Live entertainment and concerts
 - ◆ TV and Radio Outside Broadcast
 - ◆ Electro acoustic music productions
 - ◆ Itinerant Museums and Theatres
- Product for fixed installation with high quality Audio distribution, paging and zone management:
 - ◆ Stadium, Opera, theatre, museum and arts centres
 - ◆ Theme parks and resorts
 - ◆ Public Address: touring and fixed sound reinforcement
 - ◆ Broadcasting
 - ◆ Office blocks, corporate boardrooms and buildings PA
- Any System requesting bidirectional star architectures
- Broadcast and Studio:
 - ◆ Radio and TV Studio recording
 - ◆ AES/EBU routing network matrix for broadcast
 - ◆ Recording and monitoring studio
 - ◆ Multi channels Broadcasting

EtherSound 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

Architecture overview



Technical Specifications

General	
Size	483 x 253 x 44mm (19' rack / 1U Height)
Power Consumption	<50 Watts
Power Supply	100-240VAC 50/60Hz 47W Max
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)
Front Panel	Networks and links Rx and Tx Activities; Active synch running ; Power Main, Aux and On Display
Rear Panel	1 IEC Power inlet; 7 Neutrik EtherCon RJ45; 1x6 poles Euroblock Connector for Aux power supply; 1 BNC for word clock synch in 1 DB9 connector for Serial Port
AVM500-ES Features	
EtherSound Network Segment	5 EtherSound Network Segments interconnections : A (In, Out), B, C, D, E
EtherSound IN Port	1 EtherSound IN Port: AIn
EtherSound OUT Port	5 EtherSound OUT Ports: AOut, B, C, D and E
ES-100 to ES-100 Latency	6 samples (125µs at 48 kHz)
Digital Audio Channels	320 (5 x 64) Input Audio channels and 320 (5 x 64) Output Audio channels
Matrix / Patch size	320x320 full cross matrix with remote control patch via EtherSound Any individual output audio channel can be muted or patched to any of the 320 available Input audio channels
Remote control	Via EtherSound or from Ethernet PC remote link
Other I/O	RS232 serial port
Clock Synchronisation mode	<ul style="list-style-type: none"> 48 kHz local clock (when Primary Master) or EtherSound Network (When not PM) Word clock In used for synchronisation
Temp / Fan monitoring	
Temp Monitoring	Network Monitoring of Temperature inside the Box
PSU Monitoring	Network Monitoring of PSU Failure for Main and Aux power supply
4 Fan Control modes	<ul style="list-style-type: none"> Automatically Controlled by internal Temperature Full speed Software set (via ES Monitor) Off
Development and Integration Environment	
OS Supported	Windows XP
ES-Monitor	ES-Monitor enables to remotely set, control and monitor an EtherSound network and provides enhanced property pages to manage the AVM500-ES specific parameters.
Remote Network Management	Links status, Power supply status (Main, Aux), Temperature monitoring , Fan remote control and PSU Aux/Main remote control

Part numbers

AVM500-ES – Matrix router of 5 ES-100 EtherSound Networks

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