

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.

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 A_{in} and A_{out} Ports to create a redundant ring of EtherSound Networks.

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

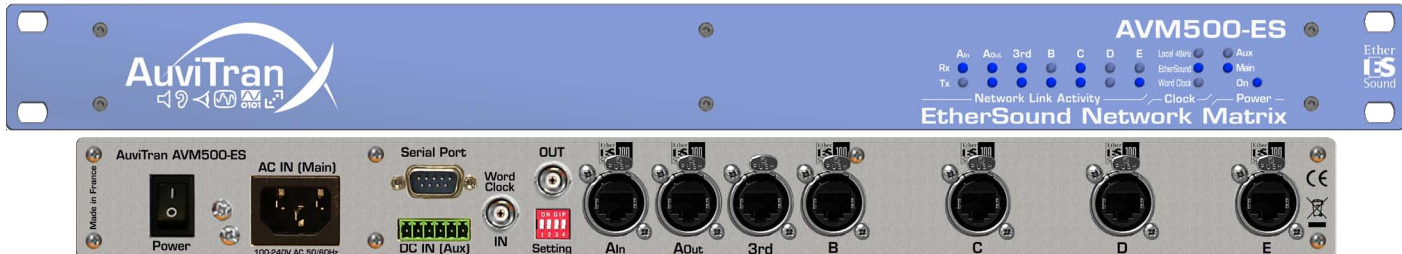
AVM500-ES enables network remote installation monitor and control thanks to its native integrated network status report capability. Any AVM500-ES can be fully monitored and controlled from a PC using ESMonitor software available for free download on AuviTran web site. AuviTran's ES-Monitor, a Windows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

Mechanical Specifications

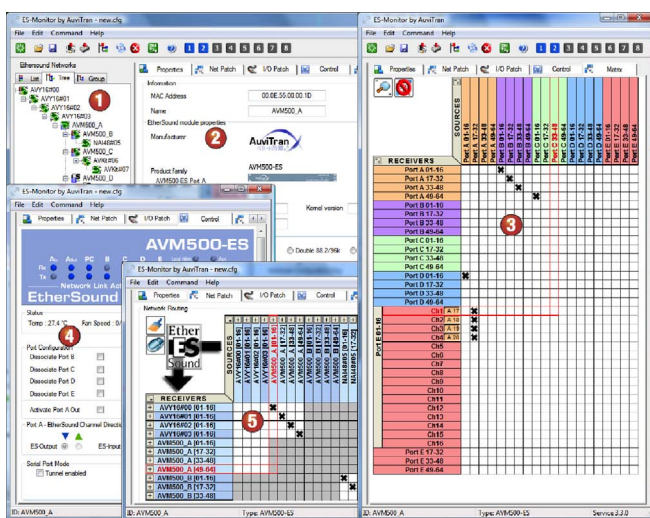
19 inches 1U rack box

Key Features

- Enhances existing EtherSound™ architectures and systems to Bidirectional Star Architectures
- Build in matrix of 5xES-100 EtherSound Networks in a 19" 1U rack
- 6 Bidirectional ES-100 EtherSound Ports
- 3rd port for direct remote control or monitor of ES100 network
- Full matrix router of 320 x 320 digital 48kHz 24 bits audio channels
- Twin Ports (A_{in}, A_{out}) available for Safety Ring AVM500-ES interconnections
- Multi AVM500-ES can be combined together to map star cabling architecture
- Serial RS232 port with virtual tunnelling capability to other serial port on an ES100 network
- Auxiliary DC In connector and integrated redundant power supply management
- Selectable Word Clock source from local 48kHz clock, BNC Word Clock In or EtherSound network



ESMonitor Software overview



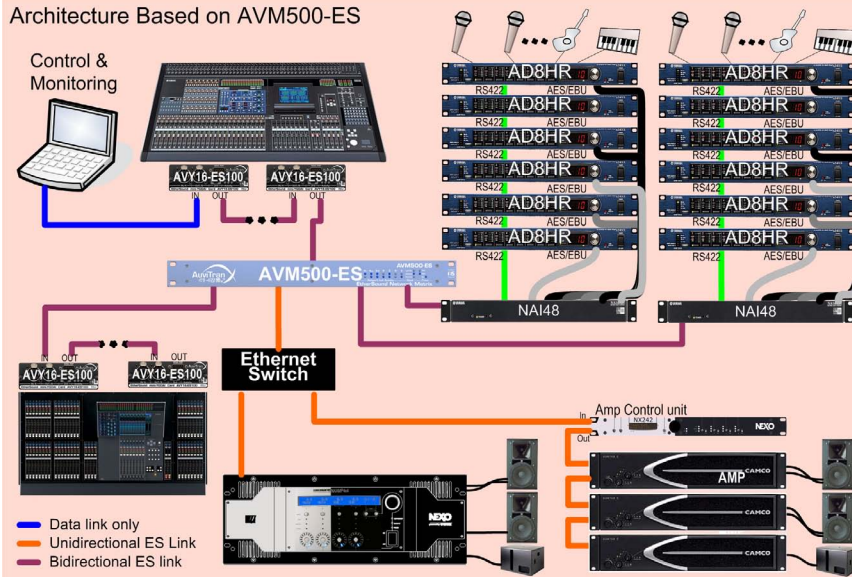
- 1 Device Selection
- 2 Properties Page
- 3 AVM500-ES Matrix Patch
- 4 Control/Settings
- 5 Network Patch

Applications

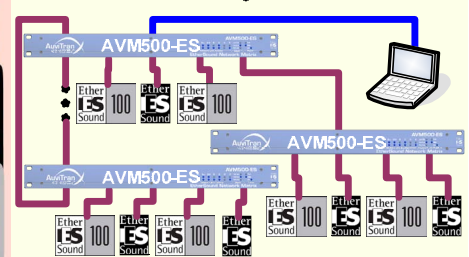
- Product for distribution, routing and control of Audio for live and touring installations
 - ◆ Live broadcast PA/announcement
 - ◆ Live entertainment and concerts
 - ◆ TV and Radio Outside Broadcast
 - ◆ Itinerant Museums and Theatres
- Product for fixed installation with high quality Audio distribution, 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

Architecture overview

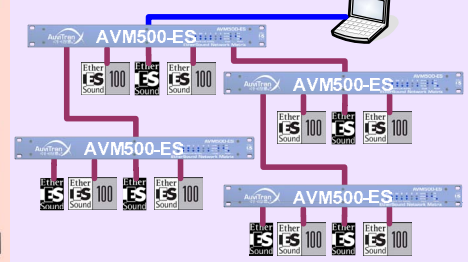
Architecture Based on AVM500-ES



Mixed Bidirectional Ring & Star architecture



Bidirectional Star architecture



Technical Specifications

General	
Size	483 x 253 x 44mm (19' rack / 1U Height)
Power Consumption	<50 Watts
Main Power Supply	100-240VAC 50/60Hz 1.5A Max
DC supply (Auxiliary)	5Vdc 5A max – 12Vdc 2A max
Auxiliary Power Supply	100-240V- 47-63Hz 1.35A / +5Vdc 5A ; +12Vdc 2A
Storage: Temp/Humidity	- 5°C to 70°C / Max 95% (non-condensing)
Operating: Temp/Humidity	5°C to 40°C / 5% to 80% (non-condensing)
Front Panel	Networks and links Rx and Tx Activities; Active synch running ; Power Main, Aux and On Display
Rear Panel	1xON/OFF switch; 1xIEC Power inlet for main AC power supply; 1x6 pole Euroblock Connector for auxiliary DC power supply; 1xDB9 for serial port; Dip switches for setting; 2xBNC for Word Clock ; 7xNeutrik Ethercon connectors for network connections
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 of 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
2 Fan Control modes	<ul style="list-style-type: none"> Off for noise reduction Automatically Controlled by internal Temperature
Development and Integration Environment	
OS Supported	Windows Vista, 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, Temperature and PSU Aux/Main monitoring Fan remote setting and Remote serial port configuration

Version 1.04 May 2008

Part numbers

AVM500-ES – Matrix router of 5xES100 EtherSound Networks