**AVRed-ES100 Overview**

AVRed-ES100 is an EtherSound ES100 redundant links management device in a 19” 1U rack box for safety audio distribution over Ethernet with ultimate low propagation delay.

AVRed-ES100 secures an EtherSound connection with 2 redundant links A/B and automatic real time measurement of communication quality as well as 4 samples latency switch on the more accurate link. AVRed-ES100 can work in pair with another AVRed-ES100 unit for very low propagation delay or placed after a standard Ethernet switch for cost sensitive installation.

AVRed-ES100 integrates a DC power supply Aux plug and integrated survey logic selecting the better power supply and able to automatically switch from one to any other in case of failure.

AVRed-ES100 enables network remote installation survey thanks to its native integrated network status and provides a local 3rd port for controlling a complete ES100 network through it.

**Mechanical Specifications**

19 inches 1U rack box

**Key Features**

- ES100 network IN/OUT port enabling the device to be used as a duplicate link A/B box or as a merging box
- 2 active redundant links A/B with automatic selection of best link depending on link quality and integrity
- 3rd port for direct remote control or monitor of ES100 network
- 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
- Full display on Front Panel of active link A or B and of both link quality and status
- Full bidirectional cable monitoring and redundancy when used as AVRed-ES100 pair
- Cost optimisation when used after an EtherSound compatible switch for cable disconnection and downstream redundancy
- Optional optical version with integrated dual media convertors and front face optical connectors

**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 Transportation public address
  - Train and bus station terminals
  - Airport facilities and audio distribution
  - Cruise Ships paging including onboard entertainment and leisure centre audio facilities
- 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

**Configurations**

**Configuration 1**

- 2 x AVRed-ES100
- Full bidirectional cable redundancy
- Downstream cut & error monitoring with automatic switch on better link
- Upstream cut & error monitoring with automatic switch on better link

**Configuration 2**

- Switch + AVRed-ES100
- Cable disconnection redundancy
- Downstream cut & error monitoring with automatic switch on better link
- Upstream follows better monitored downstream link

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www.auvitran.com
ESMonitor Software Overview

Downloadable on www.auvitran.com web site, AuviTran’s ES-Monitor is a Windows Vista/XP application which runs on a remote PC connected to the Primary Master of an EtherSound™ or the 3rd port of an ES100 network segment, through standard Ethernet connections. ESMonitor offers:

1. Automatic discovery of AVRed-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 the manufacturer ID, the product ID and the Channel I/O.
4. Local Patch assignment of any EtherSound device input or output to the required EtherSound™ channel.
5. Control of the individual parameters of the AVRed-ES100; the EtherSound IN or OUT port and link A/B activities; the Link A or B in use; the errors detected; The Temperature and Fan Control speed.

Technical Specifications

General

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>483 x 253 x 44mm (19” rack / 1U Height)</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>&lt;50 Watts</td>
</tr>
<tr>
<td>Power Supply</td>
<td>100-240VAC 50/60Hz 1.5A Max</td>
</tr>
<tr>
<td>Storage: Temp/Humidity</td>
<td>-5°C to 70°C / Max. 95% (non-condensing)</td>
</tr>
<tr>
<td>Operating: Temp/Humidity</td>
<td>5°C to 40°C / 5% to 80% (non-condensing)</td>
</tr>
</tbody>
</table>

Front Panel

- Active link running ; Quality Status of both Links A and B ; Rx and Tx Network & links Activities ; In or Out Mode selected for device ; Power On Display, Main and Aux Power supply status

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 ; 4xNeutrik Ethercon connectors for network connections

AVRed-ES100 Features

- 3 Operating modes set by external dip switch
- EtherSound ES100 Port
- Resilient Link
- Pass-through Latency
- Link Switching latency
- Clock

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

Development and Integration Environment

- OS Supported: Windows Vista or XP
- ES-Monitor: ES-Monitor enables to remotely set, control and monitor an EtherSound network and provides enhanced property pages to manage the AVRed-ES100 specific parameters.
- Remote Network Management: Links status, Temperature and PSU Aux/Main monitoring; Fan remote setting and Remote serial port configuration

Part numbers

- AVRed-ES100/EtherCon: EtherSound Redundant link with 2 EtherCon Neutrik CAT5e connectors
- AVRed-ES100/FoNeutrik: EtherSound Redundant link with 2 multimode optical OptiCon Neutrik connectors