

SONIFEX

AVN-PXH12

12 x 2 Channel Mix Monitor, AoIP Portal

Catalogue



AES67 *now!*



RAVENNA





Mix Monitor Using Audio Over IP, RAVENNA/AES 67

The AVN-PXH12 won the BaM Award™ 2018 in the “Support” category. The judges commented: “The product lives up to its reputation. It is not complex but extremely functional which the “user” environment really appreciates.” It was also winner of the AMI “Best of Show Award” for IBC2017.



AES67 now!



AVN-PXH12 12 x 2 Channel Mix Monitor, AoIP Portal



AVN-PXH12 Front View.



AVN-PXH12 Rear View.



Category: AES67/Dante AoIP Products.

Product Function: A mix monitor for monitoring 2 x 12 AES67 Audio Over IP audio channels in a compact 1U format rack to analogue outputs, a headphone output and built-in speaker.

Typical Applications: : Production gallery or control room channel monitoring positions, OB truck monitoring,

confidence channel monitoring of any AoIP installation.

Features: -

- AES67 as a format has been established, providing compatibility with most other AoIP products – the unit uses RAVENNA audio to ensure AES67 compatibility.
- A built-in web server is used for all configuration. Sources for all channels are simply assigned on one webpage and can be freely selected and altered at will.
- SAP can be used as a discovery mechanism to discover Dante devices and monitor Dante® AES67 streams. Dante® is a trademark of Audinate Pty Ltd.

- Confidence monitoring on the translucent volume knob for each channel so you’ve got ‘at-a-glance’ monitoring available.
- The front panel Mute button and the Solo feature on the control knob allow a single channel, or a handful of, channels to be auditioned quickly.
- For each channel, ‘Normal’ and ‘Alternate’ inputs can be switched quickly (with <1msec accuracy) for direct comparison.
- Each channel can be directed to headphone left ear, right ear, or a stereo mix, providing you with the ability to set up a familiar headphone mix.
- 6.35mm (1/4”) & 3.5mm headphone outputs and a speaker output with separate LS & HP volume controls.
- Sources from AoIP, balanced or 3 x unbalanced inputs.
- Destinations to AoIP or rear panel balanced outputs.
- Dual 1Gb lan ports & 1Gb SFP fibre port.
- 10 user assignable GPI/O ports.
- Dual AC & DC power supply inputs.
- Ethernet webserver control & configuration.
- Speaker mute button.

The Sonifex AVN-PXH12 is a monitor-mixer primarily designed for monitoring Audio Over IP audio channels in a compact 1U format rack. Any AES67 audio channels on your network can be assigned to input channels on the unit and mixed down to analogue outputs, a headphone output and built-in speaker.

It is a stereo monitoring device that allows you to monitor up to 12 audio sources, from an input total of 24, at any one time. The 24 audio sources can be selected from 4 discrete stereo analogue audio inputs (1 x front panel 3.5mm jack socket, 2 x rear panel 3.5mm jack sockets and 1 x rear panel stereo XLR input pair) or from any RAVENNA, AES67 or AES67-enabled Dante® AoIP connected streams.

These stereo signals are routed to the 12 x control channels on the front panel, each of which have a 'Normal' and an 'Alternate' input selection. Each channel has three buttons: one for input selection, another to Mute the channel and the third to select

whether the channel input is routed to the left, right or stereo output legs.

The knob for each channel controls the level of the input routed to the output and the knob also illuminates either green, amber or red to show input level. Pressing the knob 'Solos' the channel input to the output.

Front panel LEDs show the AoIP network status, synchronisation status and the status of the AC and DC power supply inputs.

The front panel has 3 outputs: paralleled stereo headphones on 6.35mm (¼") jack and 3.5mm jack sockets, each with their own individual attenuation settings, and a mono-

mix speaker output. There are discrete volume controls for the headphones and the speaker, and the latter also has a mute button.

The rear panel has an additional 3 line level XLR-3 audio outputs, which can be designated as mono mix or left or right channel outputs of the mixed audio content (similar to the speaker and headphone outputs respectively), or any of the physical inputs or AoIP input sources.

The unit also sends to the network, as AoIP AES67 streams, the 8 channels of the 4 physical stereo inputs, together with a stereo mix of the speaker output.

The unit can act as a PTP masterclock or slave clock and supports IEEE1588-2008 PTPv2 media and default profiles.

The rear panel contains IEC mains and secondary DC power inputs which provide power redundancy to the product. There are two Ethernet RJ45 connections (control and AoIP) and there is an Ethernet SFP module that, when used, replaces the AoIP RJ45 connection.

A rear panel GPIO connector provides 10 local ports which can be user configured as inputs or outputs and provide software controlled functionality. A voltage free relay contact can be used to operate external equipment.

A built-in web server provides complete configuration control of the unit including source assignment to each channel and also allows for firmware updates and configuration backup. The unit can be controlled by suitable Ember+ commands.

Specification For AVN-PXH12

Audio-Over-IP Specification

Open Standards:	RAVENNA, AES67
Device Discovery:	Bonjour (mDNS / DNS-SD) & SAP
Audio Delivery:	RTP/UDP over IPv4 multicast
QoS:	DiffServ
Stream Management:	RTSP/SDP
Control:	Ember+/webserver
Format:	Linear PCM 24-bit (L24)
Channels Per Stream:	Maximum of 8
Frames Per Packet:	48
Maximum Streams:	RX 15, TX 2
Sample Rate:	48 kHz

Timing Synchronisation

Profile Support:	Default, media & custom profiles
Timing Protocol:	PTPv2, IEEE1588-2008

Technical Specification

Unbalanced Line Inputs

Input Impedance:	>20kΩ
0dBFS Line-Up:	+12dBu
Frequency Response:	20Hz to 20kHz, +0/-0.2dB

THD+N:	<-97dBFS, -30dBFS, 20Hz to 20kHz, unity gain, 20kHz BW
Noise:	-100dBFS, 20kHz BW, Rs=200Ω
Crosstalk:	<-97dB

Balanced Line Inputs

Input Impedance:	>20kΩ balanced
0dBFS Line-Up:	Adjustable +15/+18/+20/+22/+24dBu
Frequency Response:	20Hz to 20kHz, +0/-0.2dB
THD+N:	<-110dBFS, -30dBFS, 20Hz to 20kHz, 20kHz BW
Noise:	-110dBFS, 20kHz BW, Rs=200Ω
Crosstalk:	<-100dB

Common Mode Rejection:	>70dB @ 1kHz
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Headphone Output

Output Impedance:	Drives 150mW into 32Ω to 600Ω headphones
0dBFS Line-Up:	+20dBu
Frequency Response:	20Hz to 20kHz, +0/-0.2dB
THD+N:	<-108dBFS, -30dBFS, 20Hz to 20kHz, unity gain, 20kHz BW

Noise:	-110dBFS, 20kHz BW
Balanced Line Outputs	
Output Impedance:	<50Ω balanced
0dBFS Line-Up:	Adjustable +15/+18/+20/+22/+24dBu
Frequency Response:	20Hz to 20kHz, +0/-0.2dB
THD+N:	<-110dBFS, -30dBFS, 20Hz to 20kHz, 20kHz BW

Noise:	-110dBFS, 20kHz BW, Rs=200Ω
Loudspeaker	
Power Output:	4W
Volume:	Mute to full volume via front panel control

Connections	
Headphone:	¼ inch (6.35mm) stereo jack socket 3.5mm stereo jack socket
Audio Inputs:	3 x unbalanced 3.5mm stereo jack socket 2 x balanced XLR-3 female socket
Audio Outputs:	3 x balanced XLR-3 male plug 1 x loudspeaker output
GPIO:	15-way 'D'-type socket

Network:	2 x gigabit Ethernet, RJ45 1 x SFP fibre
Mains AC Input:	Universal filtered IEC, continuously rated 85-264VAC, 47-63Hz, 20W
DC Input:	4 pin 7.5A power jack socket, 9.5-14VDC
Fuse Rating:	Anti-surge fuse 2A 20mm x 5mm

Equipment Type

AVN-PXH12:	2 x 12 Channel mix monitor, AoIP portal
Physical Specification	
Dimensions (Raw):	48.3cm (W) x 20.12cm (D) x 4.4cm (H)(1U) 19" (W) x 7.92" (D) x 1.8" (H) (1U)
Dimensions (Boxed):	55.2cm (W) x 29.5cm (D) x 16.5cm (H) 21.7" (W) x 11.6" (D) x 6.5" (H)
Weight:	Nett: 2.9kg Gross: 3.5kg Nett: 6.38lbs Gross: 7.7lbs

Accessories

AVN-DC-060:	60W DC power supply with KP1X-45 plug
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