



AA3OPHD

30W Mixer Amplifier



AA3OPHD

Features

- 30W Into 25V/70.7V and 4Ω Loads
- Automated Diagnostic System Test (Push Here Diagnostic)
- Balanced Mic/Line/Tel Input w/ Phantom Power
- Two Unbalanced, Summing Line Level Inputs
- Variable Mute Sensitivity Control for Input 1
- Contact Closure Mute Terminals
- Rear Mounted DIP switch Allows Mute Receive for Inputs 2 and 3

Application

The Atlas Sound AA3OPHD is the perfect choice for distributed business paging and background music (BGM) systems, small to medium speech privacy systems, and in applications where music on hold (MOH) plus paging is required.

General Description

The AA3OPHD is a three input channel mixer amplifier designed for distributed business paging and background music (BGM) systems, small to medium speech privacy systems, and in applications where music on hold (MOH) plus paging is required.

With one microphone/line input and two stereo line inputs, the AA3OPHD will accommodate a variety of input sources including paging microphones, media players, and digital music receivers. The AA3OPHD includes a patent pending automatic system test, the Push Here Diagnostic (PHD). The PHD button is designed to check the connected speaker lines for wiring and impedance errors. This test can be activated once all speakers are connected and the circuit automatically verifies that the attached speakers' tap settings do not exceed the amplifier's rated power, no speakers are mistakenly tapped at 8Ω, and the speaker wire is free from shorts.

The AA3OPHD provides 30-watts output power into 25V, 70.7V, or 4Ω speaker systems. Rear panel DIP switch allows for creation of Zone 2 output using either Input 2 or Input 3. Unit can also be set-up to mute Inputs 2 and 3 based on signal from Input 1 for paging applications where other input sources need to be muted during a page. Input 1 is either Mic or Line input selectable and Phantom Power is an option when using Input 1 Mic input.

Specifications

Type	Mixer Amplifier
RoHS Compliant	Yes
Safety Listings	ETL (UL 60065 Standard)

Electrical Specifications

Power Output	Max. Average Power @ 50Hz-15kHz with .5% THD, 4Ω 30W RMS	
Transformer Outputs	25V	30W RMS
	70.7V	30W RMS
	4Ω	30W RMS

Front Panel

Power Switch	Push Type
Indicators	Signal, Peak, Limit, Power
PHD Test Circuit	Push Momentary
Level Controls	Inputs 1 - 3

Rear Panel

Inputs	Mic / Line Balanced Qty 1, 3 Position PHX Type. 3.5mm Pitch Auxiliary Unbalanced Qty 2, RCA
Tone Controls	Bass ±6dB @ 100Hz Treble ±6dB @ 10kHz
Mute	VOX Sensitivity: Pot Rotary, Range (-) 500uV +/-200uV Remote Mute: Contact Closure, 2 Position Phoenix, 3.5mm Pitch

Control Switch Functions

Zone 2 Assign	Inputs 2, 3
Mute Receive	Inputs 2, 3
Phantom Power	Input 1
Mic line Select	Input 1

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Outputs

- Main** Transformer Coupled, Balanced, 4Ω, 25V, and 70.7V. Class 2 Rated, Removable 4 Position PHX 5.08mm Pitch, Accepts up to 12 - 24 Gauge Wire, 12A Rating
- Zone 2** Unbalanced 600Ω / 10kΩ, Max 1.0V Out, Removable 2 Position PHX 3.5mm Pitch, Accepts up to 18 - 26 Gauge Wire, 8A Rating

Technical Data

- Inputs** Total Qty 3
- Frequency Response** 50Hz - 15kHz +/- 3dB
- Thd+N** 0.5% or Less, at 1kHz, Rated Output
- Input Sensitivity / Impedance**
 - Input 1 - Mic Mode 5mv, No Trim, 1200Ω
 - Input 1 - Line Mode 316mV (-10dBV) 1200Ω
 - Input 2, 3 - 316mV (-10dBV) 10kΩ
- Signal To Noise Ratio**
 - Mic >55dB
 - Line >55dB
 - Telephone >55dB
 - Input 2/3 >75dB
- Phantom Power** 24VDC

Power Requirements

- AC Mains** 120V 60Hz
- AC Cord** 2M, 18 Gauge, NEMA 5-20P
- Idle Power** .07A, 6W, 39 BTU
- Average Power** .28A, 30W, 101 BTU
- Max Power** .86A, 89W, 303 BTU

Mechanical

- Chassis** Steel
- Finish** Black Paint on Front and Top
- Height** 3.66" (93mm)
- Width** 8.27" (210mm)
- Depth** 10.87" (276mm)

Architect and Engineer Specifications

The mixer/amplifier shall control and mix up to three input signals and deliver an audio output of 35 Watts into 4Ω, 25V, and 70.7V. The amplifier output shall be transformer isolated with a frequency response 50Hz – 15kHz (-3dB) with less than 0.5% THD at rated output. It shall be capable of operation at 120VAC 60Hz line. The mixer/amplifier shall be convection cooled. The amplifier shall have thermal and short circuit protection.

The mixer/amplifier shall have a switch- selectable MIC/TEL balanced input to accept either low impedance microphone or Tel/Line Level signals with -60/-10dBV sensitivity. The MIC/TEL input shall include a Phoenix (Euro Block) type connector. The MIC/TEL input impedance shall be 600Ω. The MIC/TEL input shall include an auto mute (VOX Mute) sensitivity control for Input 1. The MUTE SENSE control will allow threshold adjustment of mute activation. The mixer/amplifier shall include two stereo summing auxiliary inputs, unbalanced, -10dBV, with dual-RCA jacks. The auxiliary input impedance shall each be 10kΩ. The mixer/amplifier shall include one Zone 2 output, a transformer isolated 600Ω output with a maximum level of 1.0VRMS. The mixer/ amplifier Zone 2 output shall be assignable from Input 2 or Input 3 via the rear panel dipswitch. The Zone 2 output shall have one rear panel mounted rotary level control. The mixer/amplifier shall incorporate rear panel terminals via Phoenix connector for the REMOTE MUTE function, controlled by an external switch closure. A rear panel dipswitch shall allow assignment of Input 2 and/or Input 3 to respond to the mute function activation. The Mute assignment shall not affect the Zone 2 output.

The mixer/amplifier shall include the Push Here Diagnostic system test circuitry. This test will allow for automatic testing of the connected speaker lines for wiring and impedance errors. The AA30PHD front panel shall include Inputs 1, 2, and 3 level controls. System Signal, Peak, Limit, and Power LEDs shall also be incorporated. The mixer/amplifier front panel shall include an AC Mains power switch.

Dimensions (W x H x D) shall be 8.27" x 3.66" x 10.87" (210mm x 276mm x 93mm) with feet or 3.48" (88.4mm) H without feet. Net weight shall be 10.2lbs. (4.64kg). Front panel finish and material shall be black ABS resin and case finish (and material) shall be black painted sheet steel.

