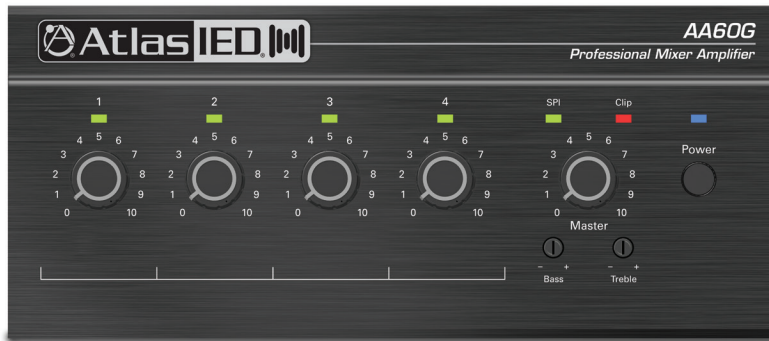


# AA35G / AA60G

Mixer Amplifier with Global Power Supply



## Features

- AA35G - Three Inputs (Each with a Front Panel Volume Control) and a Single Output Channel
- AA60G - Four Inputs (Each with a Front Panel Volume Control) and a Single Output Channel
- Ideal For Paging, Background Music, and Music-On-Hold Applications
- Balanced Mic / Line / Telco Input, Zone 2, and Dual RCA Stereo Music Inputs
- Priority Muting by VOX Or External Switch
- Bass and Treble Controls on Master Output
- Secondary Zone 2 Output 1W & 600Ω / MOH
- Universal AC Power Supply for Use in 110V - 240V Systems
- 70V, 100V, or 8Ω Amplifier Output
- Signal Presence LED Indicators

## Applications

The AtlasIED AA35G / AA60G is the perfect choice for distributed business Mic / Line / Telco 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 AA35G / AA60G is a three / four input channel mixer amplifier. With one microphone input and two stereo line inputs, the AA35G / AA60G will accommodate a variety of input sources including paging microphones, CD players, and digital music receivers. A dip switch selectable matrix allows the creation of a Zone 2 mix from any or all of the input sources for music or messaging on hold applications. The AA35G / AA60G provide 70.7V, 100V, and 8Ω outputs.

The output power of 35-watts will match nicely with FAP, SM, SD, and GD series loudspeakers. In an 11' ceiling application, the AA35G will provide power for up to 117 SD72W loudspeakers tapped at .25-watts each while providing upwards of 84dB in the direct sound field at ear height.

System	AA35G	AA60G
Type	35-Watt Mixer Amplifier	60-Watt Mixer Amplifier
Power Supply Type	Global Switch Mode	Global Switch Mode
Amp Topology	Class AB	Class AB
Number of Fixed Inputs	3	4
Accessory Inputs	N/A	N/A
DSP Internal	N/A	N/A
Network	N/A	N/A
Optional Accessory Card Slot	N/A	N/A
<b>Output Power (Note 1)</b>		
100V	35-Watts	60-Watts
70V	35-Watts	60-Watts
8Ω	35-Watts	60-Watts
<b>Front Panel</b>		
Power Switch	Push Type	Push Type
Indicators Output	Signal, Clip, Power	Signal, Clip, Power
Indicators Input	Signal	Signal
Output Limiter	N/A	N/A
PHD Test Circuit	N/A	N/A
Level Controls	Master, Inputs 1-3	Master, Inputs 1-4
EQ Output Bass	Yes	Yes
EQ Output Treble	Yes	Yes
<b>Mic / Line / AUX Inputs</b>		
Input Quantity	3	4
Mic / Line / Telco (Balanced, 3 Position PHX Type, 3.5mm Pitch)	1	1
Aux RCA (Unbalanced RCA L & R Sum)	2	3
Aux 3.5mm (Unbalanced 3.5mm L & R Sum)	N/A	N/A
<b>Speciality Inputs</b>		
Line Input Balanced (Balanced, 3 Position PHX Type, 3.5mm Pitch)	N/A	N/A
Line Input Unbalanced (RCA)	N/A	N/A
Room Combine - Bridge Buss In / Out (Line Level Balanced 5 Position PHX Type, 3.5mm Pitch)	N/A	N/A
Amp In (Balanced, 3 Position PHX Type, 3.5mm Pitch)	N/A	N/A
<b>Input Mute</b>		
VOX (Input 1 Activated) (Assignable Inputs, VOX Threshold Sensivity)	Fixed Assignment	Fixed Assignment
Priority / Remote Mute: Assignable Inputs, Contact Closure (2 Position PHX)	Fixed Assignment	Fixed Assignment
<b>Remote Level</b>		
Type (External Variable Resistance 10kΩ - 0Ω)	N/A	N/A
Connector (2 Position PHX Type, 3.5mm Pitch)	N/A	N/A
Assignment (Input 6 or Master, Dip Switch Selection)	N/A	N/A

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Outputs		
Main (Class 2 Wire Rated) Transformer Coupled Taps	8Ω, 70.7V, 100V	8Ω, 70.7V, 100V
Main Output Termination (Barrier Strip Screw Terminal)	Yes	Yes
Zone 2 1W 8Ω with Level Control (2 Position PHX Type, 5.08mm Pitch)	Yes	Yes
Zone 2 Balanced / MOH with Level Control (600Ω, Max 1.0V Out, 2 Position PHX Type, 5.08mm Pitch)	Yes	Yes
Pre Out (Balanced, 2V Max, Pre Master Level Control)	Yes	Yes
Control Switch Functions		
Zone 2 (Assignable)	Yes	Yes
Mute Receive (Assignable)	Yes	Yes
Phantom Power (24V)	Yes	Yes
Mic/Line Select (Inputs 1, 2, 3, 4)	Input 1	Input 1
Remote Level Assignment (Input 6 or Master Level)	N/A	N/A
Lo Cut Filter (400Hz Hi-Pass Filter, By-passes Bass EQ)	N/A	N/A
Technical Data		
Frequency Response (LF +/- 3db, HF +/- 1dB)	Yes	Yes
THD+N (0.5% or Less, at 1kHz, Rated Output)	Yes	Yes
Input Impedance (Mic / Line / Telco Balanced 1200Ω, Unbalanced 10kΩ)		
Mic Mode	3mV	3mV
Line Mode	800mV	800mV
3.5mm L & R Unbalanced Summed	NA	NA
RCA Unbalanced L & R Summed	400mV	400mV
Signal To Noise Ratio		
Mic	55dB	55dB
Balanced Line	55dB	55dB
3.5mm L & R Unbalanced Summed	75dB	75dB
RCA Unbalanced L & R Summed	75dB	75dB
Phantom Power (Mic Mode)	24V	24V
EQ		
Output Bass	±6dB @ 100Hz	±6dB @ 100Hz
Output Treble	±6dB @ 10kHz	±6dB @ 10kHz
DSP	NA	NA
Power Requirements		
AC Mains Operating Range (100V - 240v 50 / 60 Hz)	Yes	Yes
AC Cord (IEC to NEMA 5-20P, 2M, 18-Gauge)	Yes	Yes
Idle Power (Amps, Watts, BTU)	0.18A, 11W, 37 BTU	0.27A, 16W, 54 BTU
Average Power - Note 3 (Amps, Watts, BTU)	0.75A, 54W, 184 BTU	1.09A, 81W, 276 BTU
Max Power - Note 1 (Amps, Watts, BTU)	1.15A, 90W, 307 BTU	1.67A, 131W, 446 BTU
Cooling		
APD Standby, Active Idle	Convection Cooled	Convection Cooled
In Use	Convection Cooled	Convection Cooled
Cooling Air Flow Direction	N/A	N/A

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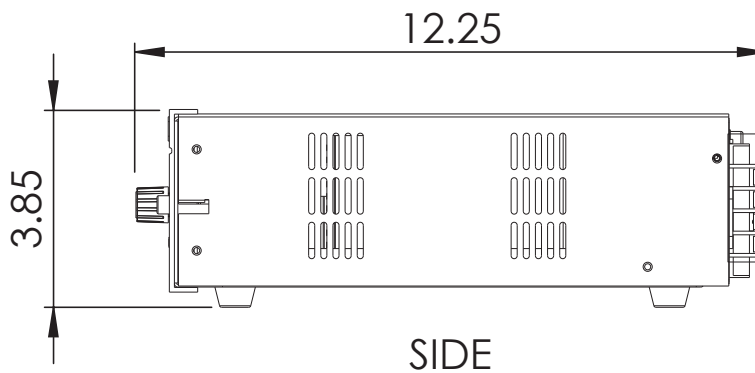
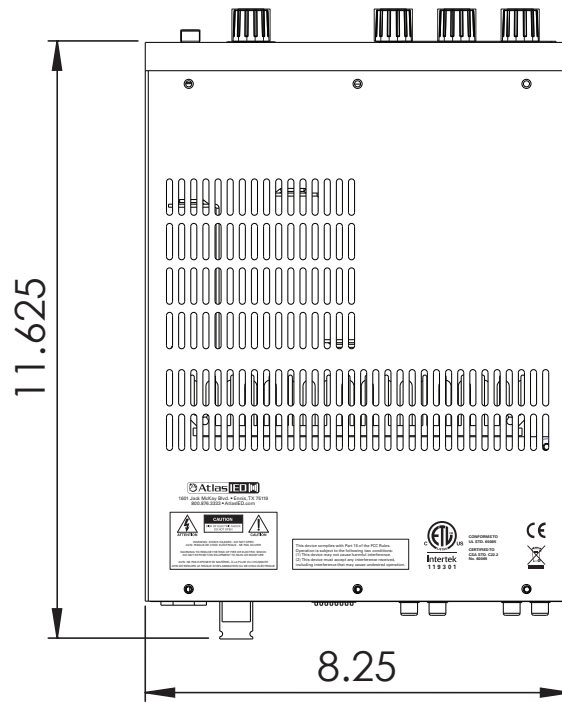
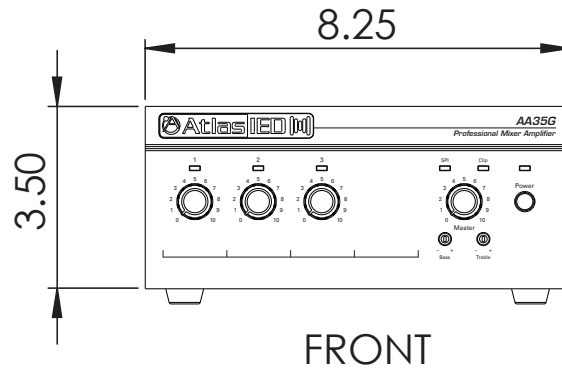
Mechanical		
Chassis	Steel	Steel
Finish	Black Paint	Black Paint
Agency Approvals		
RoHS Compliant	Yes	Yes
Safety Listings	Yes	Yes
CB	Yes	Yes
FCC	N/A	N/A
Dimensions and Weight		
Rack Mount Requirements	AAGRMK2 Rack Mount Kit (2RU)	AAGRMK2 Rack Mount Kit (2RU)
Dimensions - Unit	8.25" W x 3.5" H x 12.25" D (210mm x 90mm x 311mm)	8.25" W x 3.5" H x 12.25" D (210mm x 90mm x 311mm)
Dimensions - Shipping	15.3" W x 6.8" H x 10.8" D (389mm x 173mm x 275mm)	15.3" W x 6.8" H x 10.8" D (389mm x 173mm x 275mm)
Weight - Unit	8.2 lbs (3.7 kg)	9.7 lbs (4.3 kg)
Weight - Shipping	10.55 lbs (4.78 kg)	12.11 lbs (5.49 kg)

**NOTES:**

1. Power level measurement is define as follows: 1Hz Sine wave signal 1 second at 1% THD+N
2. If the amplifier specifies 8 ohm load, a 4 ohm load can be applied but will deliver the the power rating of 8 ohm. If driven past this power rating the amplifier will go into protect.
3. Average Power is defined as Pink Noise input signal applied to achieve 1/3 of the 4 Ohm or 70.7V power rating.
4. Max Power is defined as 1 KHz input signal applied to achieve the maxium power output before clipping into a 4 Ohm or 70.7V load.
5. BTU is calculated by the AC Mains Power consumed minus the total power output measured at the specified load and condition, multiplied by 3.412.  
Example: 785 Watts from the AC Source - 600 Watts Total Output power = 185 x 3.412 = 631 BTU

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## Dimensional Drawings



## 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 8 $\Omega$ , 70.7V, and 100V or 60-watts into 8 $\Omega$ , 70.7V, and 100V. The amplifier output shall be transformer isolated with a frequency response 50Hz – 20kHz (-1dB) with less than 0.5% THD at rated output. The output regulation shall be less than 2dB, no load to full load. It shall be capable of operation from a 110V to 240VAC, 50/60Hz 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 dBV sensitivity. The MIC / TEL input shall include a Phoenix (Euro Block) type connector. The MIC / TEL input impedance shall be 600 $\Omega$ . 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 (AA35G) and three (AA60G) auxiliary inputs, unbalanced, -10dBv, with dual-RCA jacks. The auxiliary input impedance shall each be 10k $\Omega$ . The mixer / amplifier shall include a Zone 2 output, a 1-watt at 8 $\Omega$  output, and transformer isolated 600 $\Omega$  output with a maximum level of 1.5VRMS. The mixer / amplifier Zone 2 output shall be assignable from any of the 3 inputs via the rear panel dipswitch. The Zone 2 output shall have one rear panel mounted rotary level control for both outputs. 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 front panel shall include Inputs 1, 2, 3 (AA35G) and 4 (AA60G level controls. Input Signal, Output Signal, Clip and Power LEDs shall also be incorporated. The mixer / amplifier front panel shall also include bass and treble tone controls (100Hz and 10kHz,  $\pm$ 10dB). The tone controls shall not affect the Zone 2 output. The mixer / amplifier front panel shall include an AC Mains power switch.

A rear panel AC receptacle (un-switched) shall be included for connection of external equipment.

Dimensions (W x H x D) shall be 8.25" x 3.85" x 12.25" (210mm x 98mm x 311mm) with feet and knobs or 3.5" (90mm) H without feet. Net weight shall be 8.2lbs. (3.7kg). Front panel finish and material shall be black ABS resin and case finish (and material) shall be black powder coated sheet steel.