



Introduction

The Atlona **AT-GAIN-M50-LZ** is a two-input mixer amplifier designed for low impedance education and commercial applications. The amplifier delivers either two channels of 25 watts each into 4 or 8 ohms, or a single channel of 50 watts. The GAIN-M50-LZ features two unbalanced stereo audio inputs on RCA and 3.5 mm connections with independent level control for each. An unbalanced 3.5 mm output allows the mixed signal to be passed to an assistive listening system or separate amplifier.

The GAIN-M50-LZ includes unique capabilities intended for education applications. Ducking automatically lowers the program audio level on input 1 when a teacher speaks into a microphone system connected to the unbalanced input 2. PA sense mutes the output of the amplifier whenever it detects activity on the school public address system. Both features ensure important lesson material and announcements are heard clearly.

The compact, plenum rated enclosure allows the amplifier to be mounted in a variety of locations such as under a desk or table, on the wall behind a display, or in the ceiling.

The amplifier includes an RS-232 port for automated operation from Velocity™ or third-party control systems. It also supports remote volume control from the optional AT-GAIN-VOL wallplate.

Applications

- **Classrooms**
Distribute lesson audio to speakers in the room, lower program audio when teacher speaks in microphone, mute audio for PA announcements.
- **Huddle spaces and meeting rooms**
The GAIN-M50-LZ can receive audio from an AV switcher or DSP, and then feed the audio to program speakers in the room.
- **Plenum airspaces**
Amplifier can be concealed above a drop ceiling, minimizing the need for AV equipment space in a room.

Key Features

- Two-Input mixer amplifier.
- Unbalanced stereo line level inputs available on RCA or 3.5 mm connectors.
- 2 x 25 watts @ 4/8 ohms (stereo).
- 1 x 50 watts @ 4/8 ohms (bridged L+R mono).
- Unbalanced line level output allows the mixed signal to be passed to an assistive listening system or separate amplifier.
- Ducking lowers the level of input 1 when audio is present on input 2.
- PA Sense mutes the amplifier when a public address announcement is detected.
- Energy Star® qualified for power efficiency and cost savings.
- Compact, UL 2043 plenum-rated enclosure for mounting under a desk or table, on the wall behind a display, or in the ceiling.
- RS-232 for configuration and control from Velocity or third-party automation systems.
- User controls for level, mute, ducking, and PA sense.
- Status LEDs for power, port, and PA sense.
- Optional AT-GAIN-VOL volume control wallplate.
- Includes captive screw connectors, and external universal power supply.

Specifications

Input Signal	
RCA	3.162 Vrms unbalanced, < 0.1% THD
3.5 mm stereo jack	1 Vrms unbalanced, < 0.1% THD

Output Signal	
Nominal	0.316 Vrms balanced, 20 Hz - 20 kHz, < 150 Ω
Maximum	3.162 Vrms balanced, 20 Hz - 20 kHz, < 150 Ω

Amplifier	
Type	Class D
Frequency Response	20 Hz - 20 kHz, ±2 dB
THD+N	< 0.1% @ 1kHz and < 0.3% @ 100 Hz - 16 kHz
IMD (ITU-R)	< 1%, 100 Hz - 15 kHz
Crosstalk	-80 dB, 20 Hz - 20 kHz, +4 dBu, channel-to-channel

RS-232	
Port	2 x 3-pin captive screw
Use	Unit and external device control and configuration
Baud Rates	9600, 19200, 38400, 57600, 115200
Data Flow	Bidirectional

Buttons and Indicators	
Buttons: PORT, LEVEL+ / LEVEL-, MUTE, DUCKING	5 x momentary, tact-type
Indicators: PWR, IN1, IN2, OUT	4 x LED, green

Connectors	
INPUT	2 x RCA-type, female, unbalanced: 20 kΩ 1 x 3.5 mm mini-stereo
OUTPUT	1 x 4-pin, 5.08 mm lock-down screw connector
CTRL / RS-232	2 x 3-pin captive screw
TRIGGER	1 x 2-pin captive screw
LOOP	1 x 3.5 mm mini stereo
PA SENSE 25V - 100V	1 x 2-pin captive screw
HUB	1 x USB type C, female
DC 24V / 3A	1 x 4-pin DIN

Environmental	Fahrenheit	Celsius
Operating Temperature	+32 to +122	0 to +50
Storage Temperature	-4 to +140	-20 to +60
Operating Humidity (RH)	20% to 90%, non-condensing	

Power		
Standby Mode	Powers down after 5 - 25 minutes (adjustable) of no signal; complies with ErP power consumption limits of < 0.5W in standby mode	
Idle Consumption	3.6 W	
Maximum Power	64.3 W	
BTU/h	12.3 (idle) 67.9 (maximum power)	
Supply	100 - 240 V AC, 50/60 Hz Output: 24 V / 3 A DC	

Dimensions (H x W x D)	Inches	Millimeters
Unit	1.02 x 8.62 x 5.98	26 x 219 x 152
Power Supply (AT-PS-243-D4)	1.42 x 1.81 x 4.41	36 x 46 x 112

Weight	Pounds	Kilograms
Device	1.93	0.88

Certification		
Device	CE, RoHS, FCC	
Power Supply	CE, FCC, UL, CUL, TUV-GS, CB, PSE, CCC	

Compliance		
NDAA-889	Yes	
TAA	Yes	

Warranty		
3 years	View the full warranty information here: https://atlona.com/warranty	

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