GAIN AUDIO

# GN-GAIN-A1543
# Specification Sheet
**240W Stereo/Mono Mixer Amplifier**

## Description

The GN-GAIN-A1543 is a mixer amplifier designed for low or high impedance education and commercial applications. A mode selector switch allows delivery of two channels of 120 watts each into 4 or 8 ohms, or a single channel of 240 watts at 70 or 100 volts. Four analog inputs are individually configurable as microphone (with Phantom power) or line level, supporting both mono and stereo configurations.

The on-board mixer provides gain, ducking, delay, high/low pass filters, 5-band parametric EQ, and independent output attenuation for both the amplifier and line outputs. LAN and RS-232 interfaces enable control from Velocity or third-party systems. The rack-mountable 1RU half-rack-width enclosure ships with short rack ear, long rack ear, and dual mounting plate for side-by-side rack installation of two units. An optional GN-GAIN-Y1511 Dante/AES67 network audio interface card is available.

## Applications

### Classrooms

- Distribute lesson audio to low impedance room speakers, reduce program audio when the teacher microphone is active, and mute for PA announcements.

### Meeting Rooms

- Receive audio from an AV switcher or DSP and feed a high impedance distributed speaker network in the room.

## Key Features

- Four analog inputs individually configurable as mic (with +48V Phantom) or line level.
- 2×120W @ 4/8Ω (stereo) or 1×240W @ 70V/100V (mono).
- On-board mixer with gain, ducking, delay, HPF/LPF, 5-band parametric EQ per input and output.
- Independent mixes for amplifier and line outputs with separate gain control.

- Ducking reduces program audio when signal is detected on the selected input.
- Balanced line-level output for assistive listening or secondary amplifier.
- LAN (RJ45) and RS-232 for configuration and control from Velocity or third-party systems.
- Standby mode configurable from 1 to 1440 minutes.
- Optional GN-GAIN-Y1511 Dante/AES67 network audio interface.

Rack-mountable 1RU half-rack-width; ships with short/long rack ears and dual mounting plate.

## Specifications

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|---|---|
| **Inputs** | |
| Mic/Line | 4 analog inputs, configurable individually as mic or line |
| Mic Input Level | −50dBV typical |
| Consumer Line Level | −10dBV |
| Professional Line Level | +4dBV |
| Phantom Power | +48VDC, 10mA (mic mode) |
| Input Impedance | >20kΩ |
| Signal Detection | ≤1Vrms (−60dBV) at 1kHz |
| **Amplifier Performance** | |
| Power | 2×120W @ 4/8Ω; 1×240W @ 70V/100V (mono) |
| Type | Class D |
| Frequency Response (Low-Z) | 20Hz–20kHz, ±1dB |
| Frequency Response (High-Z) | 200Hz–12kHz, ±1dB; 80Hz–20kHz, ±3dB |
| THD+N | 0.1% @ 1kHz, 3dB below clipping |
| SNR | >85dB |
| CMRR | >75dB |
| **Signal Processing** | |
| HPF | Butterworth, 6/12/18/24/30 dB/oct selectable |
| LPF | Butterworth, 6/12/18/24/30 dB/oct selectable |
| 5-Band Parametric EQ | 20Hz–20kHz; Q: 1–15; Gain: −36 to +12dB |
| Delay | 0–30ms (0.1ms steps) |
| **Ethernet** | |
| Port | 1×RJ45 |
| Protocols | HTTP, HTTPS, mDNS |
| Speed | 10/100/1000 Mbps |
| Addressing | DHCP, Static |
| **RS-232** | |
| Port | 1×8-pin captive screw |
| Baud Rates | 9600–115200 |

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| Data Flow | Bidirectional | |
| **Connections** | | |
| Mic/Line In | 2×6-pin captive screw | |
| 4/8Ω Output | 1×4-pin 5.08mm lock-down screw | |
| 70V/100V Output | 1×2-pin 5.08mm lock-down screw | |
| Line Out | 1×6-pin captive screw | |
| Control/RS-232 | 1×8-pin captive screw | |
| LAN | 1×RJ45 | |
| Firmware | 1×USB-C female | |
| Power | 1×IEC | |
| **Power** | | |
| Supply | 100–240 VAC, 50/60Hz (integrated) | |
| Low Power Mode | 0.5W | |
| Network Standby | 2W | |
| Standby Timer | 1–1440 min configurable | |
| Idle Power Consumption (5min after power on) | 28.82W | |
| Under Load | **4Ω-1W** | 31.51W |
| | **4Ω-1/8 power** | 65.7W |
| | **4Ω-1/3 power** | 124.15W |
| | **4Ω-full power** | 315.92W |
| | **8Ω-1W** | 30.27W |
| | **8Ω-1/8 power** | 62.09W |
| | **8Ω-1/3 power** | 118.20W |
| | **8Ω-full power** | 297.98W |
| **Mechanical** | | |
| Dimensions (H×W×D) | 1.75"×8.875"×13" (44×225×330mm) | |
| Weight | 6.94 lbs (3.15 kg) | |
| Enclosure | 1RU, half-rack-width | |
| **Environmental** | | |
| Operating Temperature | +32°F to +122°F (0°C to +50°C) | |
| Storage Temperature | -4°F to +140°F (-20°C to +60°C) | |
| Humidity | 20%–90%, non-condensing | |
| **Regulatory** | | |
| Certifications | CE, RoHS, FCC | |
| Compliance | NDAA-889 | |

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| Warranty | 3 years |