Introduction

The Atlona Gain™ 60 (AT-GAIN-60) is a compact power amplifier designed for low or high impedance applications. A mode selector switch allows the Gain 60 to deliver two channels of 30 watts each into 4 or 8 ohms, or a single channel of 60 watts at 24, 70, or 100 volts. This Class-D amplifier is energy-efficient and ENERGY STAR® qualified, and is also convection-cooled without the need for fans. Additionally, the Gain 60 is UL 2043 plenum-rated, allowing convenient yet discreet installation in a plenum airspace above a drop ceiling. Balanced and unbalanced inputs are provided for system design versatility. The Gain 60 is controllable via TCP/IP or RS-232, and can be integrated with Atlona AV switchers and OmniStream™ AV systems for a wide variety of sound reinforcement applications.

Applications

- **Meeting rooms, huddle rooms, and classrooms**
  The Gain 60 can receive audio from an AV switcher or DSP, and then feed the audio to program speakers on the front wall, or a distribution of ceiling speakers.

- **Plenum airspaces**
  The Gain 60 can easily be concealed above a drop ceiling, minimizing the need for AV equipment space in a room.
Key Features

• Selectable low or high impedance operation.
• 2 x 30 watts @ 4 or 8 ohms.
• 1 x 60 watts @ 24, 70, or 100 volts.
• Selectable balanced and unbalanced audio inputs.
• Class-D efficient amplifier design.
• ENERGY STAR qualified.
• Convection cooled – no need for fans.
• UL 2043 plenum-rated – allows installation above commercial drop ceilings.
• Automatic standby, configurable from 5 to 25 minutes of inactivity, to minimize power consumption.
• Rear panel input level control.
• Integrated protection circuitry automatically activates in the event of clipping, short circuit, thermal overload, and more.
• Bass and treble tone controls.
• TCP/IP and RS-232 control of volume level, muting, and tone controls.
• Ideal for IP-based control from Atlona Velocity™ Control System.
• Front-panel button controls for input selection, mute, and volume control.
• Front-panel signal status LEDs for power, input selection, mute, and real-time volume level.
• Compact, rack-mountable enclosure.
• Optional AT-RACK-1RU rack shelf – recommended for rack installation.
• Includes installation guide, captive screw connectors, and external universal power supply.
Connection Diagrams

- AT-GAIN-60 with Program Speakers

- AT-GAIN-60 with Distributed Speakers
## Specifications

### Connectors, Controls, and Indicators

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAN</td>
<td>1 - RJ45</td>
</tr>
<tr>
<td>AUDIO IN 1</td>
<td>1 - 5-pin captive screw, balanced: 10 kΩ</td>
</tr>
<tr>
<td>AUDIO IN 2</td>
<td>2 - RCA-type, female, unbalanced: 20 kΩ</td>
</tr>
<tr>
<td>4 / 8 Ω OUT</td>
<td>1 - 4-pin, 5.08 mm lock-down screw connector</td>
</tr>
<tr>
<td>24 / 70 / 100V</td>
<td>1 - 5-pin, 3.5mm</td>
</tr>
<tr>
<td>Power</td>
<td>1 - 3.5 mm barrel, locking</td>
</tr>
<tr>
<td>INPUT GAIN</td>
<td>1 - Rotary pot</td>
</tr>
<tr>
<td>MODE</td>
<td>1 - Slider switch, 5-pole, 24V / 70V / 100V / 8 Ω / 4 Ω</td>
</tr>
<tr>
<td>RESET</td>
<td>1 - Push button, tact-type</td>
</tr>
<tr>
<td>INPUT</td>
<td>1 - Push button, tact-type</td>
</tr>
<tr>
<td>MUTE</td>
<td>1 - Push button, tact-type</td>
</tr>
<tr>
<td>VOL</td>
<td>2 - Push buttons, tact-type</td>
</tr>
<tr>
<td>PWR</td>
<td>1 - LED indicator, green</td>
</tr>
<tr>
<td>1 / 2 Input Indicators</td>
<td>2 - LED indicators, green</td>
</tr>
<tr>
<td>Mute Indicator</td>
<td>1 - LED indicator, red</td>
</tr>
<tr>
<td>Audio Level Indicator</td>
<td>1 - Multi-LED</td>
</tr>
</tbody>
</table>

### Input Signal

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analog Input</td>
<td>Balanced: 20 kΩ, unbalanced: 10 kΩ</td>
</tr>
<tr>
<td>Input Gain</td>
<td>Adjustable, -22 dB to 0 dB</td>
</tr>
<tr>
<td>CMRR</td>
<td>49 dB / 67 dB</td>
</tr>
<tr>
<td>Detection Threshold</td>
<td>0 dBV = 2.218 dBu</td>
</tr>
</tbody>
</table>

### Output Signal

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distributed speakers (mono)</td>
<td>24 V / 70 V / 100 V</td>
</tr>
<tr>
<td>Program speakers (stereo)</td>
<td>4 Ω / 8 Ω, line-level</td>
</tr>
<tr>
<td>Power</td>
<td>24 V = 60 Vrms (high-Z)</td>
</tr>
<tr>
<td></td>
<td>70 V = 60 Vrms (high-Z)</td>
</tr>
<tr>
<td></td>
<td>100 V = 60 Vrms (high-Z)</td>
</tr>
<tr>
<td></td>
<td>4 / 8 Ω = 30 W per channel</td>
</tr>
</tbody>
</table>

### Audio Processing

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio Formats</td>
<td>24-bit uncompressed, selectable at 44.1, 48, 88.2, and 96 kHz sampling rate</td>
</tr>
<tr>
<td>Signal Processing</td>
<td>Volume, Auto on/off signal sensing, 80 Hz HPF</td>
</tr>
<tr>
<td>2-band EQ</td>
<td>Bass / Treble, adjustable: -10 to +10 dB</td>
</tr>
</tbody>
</table>
### Audio Performance

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frequency Response</strong></td>
<td>20 Hz - 20 kHz, ±0.2 / - 2 dB @ 4 Ω load</td>
</tr>
<tr>
<td><strong>THD + N</strong></td>
<td>&lt; 0.1% @ 1 kHz, 3 dB below clipping</td>
</tr>
<tr>
<td><strong>SNR</strong></td>
<td>&gt; 95 dBA WTD</td>
</tr>
<tr>
<td><strong>Damping Factor</strong></td>
<td>&lt; 48 @ 8 Ω</td>
</tr>
<tr>
<td><strong>Amplifier Type</strong></td>
<td>Class D</td>
</tr>
</tbody>
</table>

### Temperature

<table>
<thead>
<tr>
<th></th>
<th>Fahrenheit</th>
<th>Celsius</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating</strong></td>
<td>32 °F to 122 °F</td>
<td>0 °C to 50 °C</td>
</tr>
<tr>
<td><strong>Storage</strong></td>
<td>-40 °F to 158 °F</td>
<td>-40 °C to 70 °C</td>
</tr>
<tr>
<td><strong>Humidity (RH)</strong></td>
<td>90% RH, non-condensing</td>
<td></td>
</tr>
</tbody>
</table>

### Power

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standby Mode</strong></td>
<td>Powers down after 5 - 25 minutes (adjustable) of no signal; complies with ENERGY STAR power consumption limits of &lt; 0.5 W in standby mode</td>
</tr>
<tr>
<td><strong>Consumption</strong></td>
<td>60 W (max.)</td>
</tr>
<tr>
<td><strong>Standby Consumption</strong></td>
<td>&lt; 1.2 W</td>
</tr>
<tr>
<td><strong>Supply</strong></td>
<td>100 - 240 V AC, 50/60 Hz, 60 W</td>
</tr>
</tbody>
</table>

### Dimensions

<table>
<thead>
<tr>
<th></th>
<th>Inches</th>
<th>Millimeters</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H x W x D</strong></td>
<td>1.69 x 5.00 x 7.95</td>
<td>43 x 127 x 202</td>
</tr>
</tbody>
</table>

### Weight

<table>
<thead>
<tr>
<th></th>
<th>Pounds</th>
<th>Kilograms</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Device</strong></td>
<td>3.15</td>
<td>1.43</td>
</tr>
</tbody>
</table>

### Certification

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Device</strong></td>
<td>CE, RoHS, WEEE, FCC, ENERGY STAR®</td>
</tr>
</tbody>
</table>