

AP412

4 × 120W Power Amplifier with DSP



AP412 is a 4-channel DSP-equipped amplifier that delivers 120W per channel and receives balanced / unbalanced mic / line-level signals to drive 4 / 8-ohm low impedance or 70 / 100V line loudspeaker systems. It also supports Lo-Z / Hi-Z in Bridge mode to deliver higher power.

Configurable via intuitive WebGUI / ATEN Audio Wizard, the built-in DSP allows Speaker EQ, 5-band EQ, compressor, delay, limiter, and up to 20 presets for precise tuning and extensive audio system protection. The ground-lift switch helps eliminate unwanted hum noises from power circuit. Immersive sound experience is delivered without compromise on power efficiency with the Class D design. Customizable Auto Standby mode enables AP412 to automatically switch to "sleep" when the signal level falls lower than -40 / -50 dBu for 10 / 15 / 25 minutes.

With the system protection circuit, the amplifier is prevented from damages led by shorted outputs, over / under-voltage, high-frequency overload, and overtemperature. Plus, AP412 will be muted when the heat sink temperature exceeds the limit. The fanless design avoids fan noise and prevents dust from building up inside the chassis.

AP412 becomes compatible with Dante audio when working with [AP901](#) expansion card or receives two more channels of mic / line signals with [AP902](#) expansion card. It can be integrated with ATEN VK Control System via RS-232 / Ethernet for comprehensive control from a distance. The 1U casing is available for rack mounting. AP412 assures reliable amplification with professional audio quality and higher power delivery for larger commercial spaces.



Energy Saving



Lo-Z Bridge



Overheat Protection



Self-Protection Circuit



VK Driver Available

Features

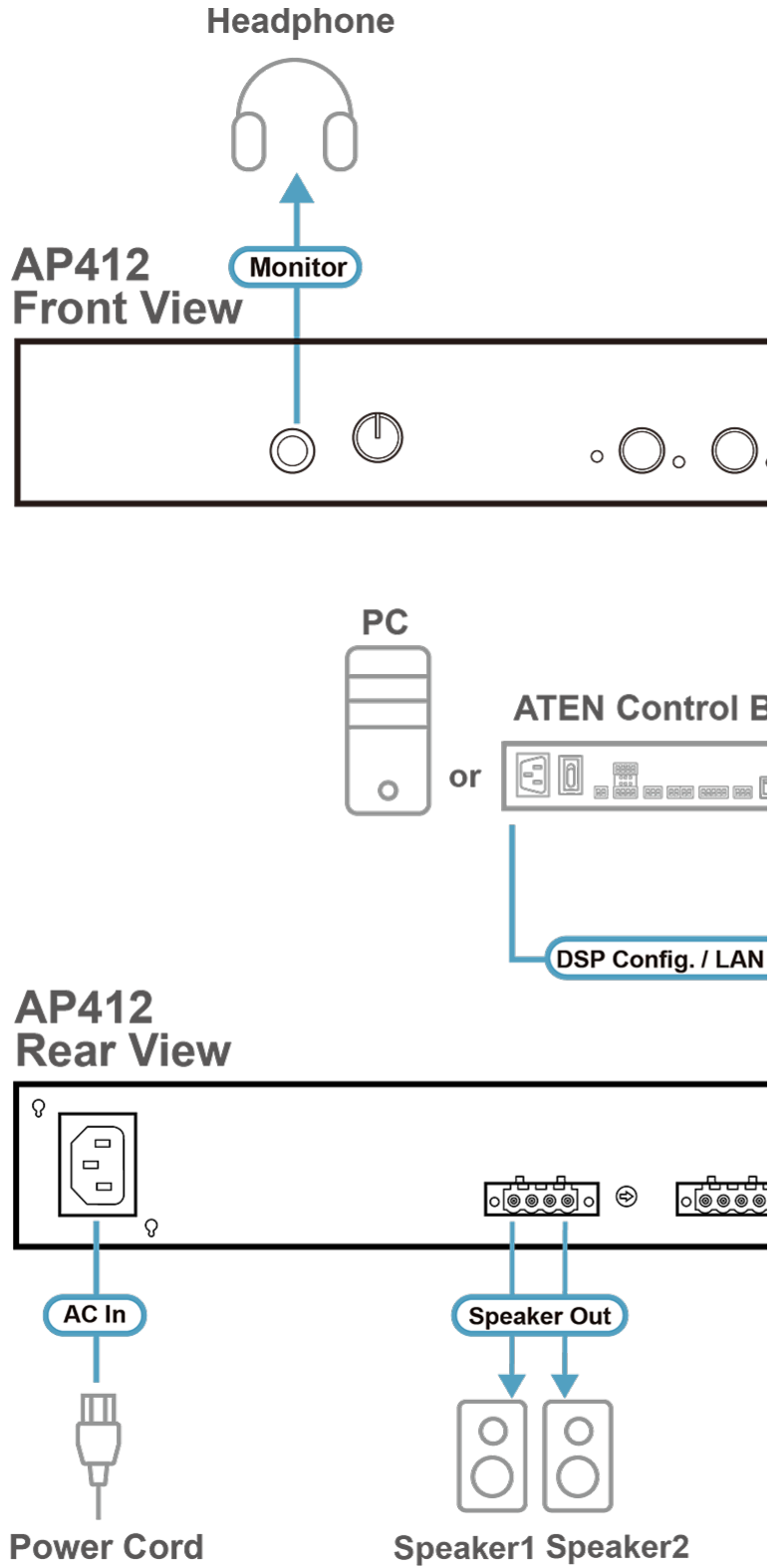
- A 4-channel DSP-equipped amplifier that delivers 120W per channel
- Supports balanced / unbalanced mic / line-level inputs and drives 4 / 8-ohm low impedance or 70 / 100V line (in Bridge mode) loudspeaker systems
- +48V phantom power supply
- Built-in WebGUI-configurable Sigma® DSP allows speaker EQ, 5-band EQ, compressor, delay, limiter, and up to 20 presets for precise tuning and system protection
- Class D design assures high power efficiency
- PFC (Power Factor Correction) Power Supply – Fly-back power supply design with PFC ensures efficient operation while reducing energy consumption
- Integrated protection circuit – Protects the system from damages caused by Amp short circuit, Amp output over/under voltage, high-frequency overload, and overtemperature
- Customizable Auto Standby mode – Amplifier automatically switches to "sleep" when the signal level falls lower than -40 / -50 dBu for 10 / 15 / 25 minutes
- Solo function – Allows users to isolate and monitor a particular input / output
- Expansion slot for add-on expansion card – Install [AP901](#) 2-CH Dante Expansion Card to make the sound system compatible with Dante network or [AP902](#) 2-CH Mic/Line Pre-AMP Expansion Card to receive two more channels of mic / line input signals
- Fanless – Avoids fan noise and prevents dust from building up
- Supports VK Control System via RS-232 and Ethernet connection
- 1U rack mountable enclosure
- Firmware upgradable

Specifications

| | |
|----------------------------|---|
| System Specification | |
| Amplifier Type | Class D |
| Rated Power | 120W per Channel @4Ω or 8Ω 240W per Channel @8Ω Bridge or 70/100V Hi-Z Bridge |
| Sensitivity | Balanced: +4dBu Unbalanced: -10dBV (0dBu=0.775Vrms, 0dBV=1Vrms) |
| Distortion | THD+N: <0.1%, 1kHz, 3dB before clipping |
| Frequency Response | 50~20kHz, +/-2.5dB @4Ω, 1W, MIC/Line Input to SPK Output |
| Microphone Inputs | |
| Gain Range | 0~+36dB |
| Impedance | 3kΩ |
| Phantom power | +48V |
| Line Inputs | |
| Gain Range | Bal: -6~+4dB UnBal: -6~+10dB |
| Impedance | Bal: 5kΩ UnBal: 2.5kΩ |
| Maximum Input Level | +19dBu / Nominal: +4dBu |
| Line Outputs | |
| Impedance | 200Ω |
| Maximum output Level | +10dBu / Nominal: +4dBu |
| Headphone Outputs | |
| Frequency Response | 50~20kHz, -3dB @10mW |
| Maximum output Level | >30mW @32Ω |
| Audio Effects | Built-in DSP (COMP, EQ, Delay, Priority, Limiter) |
| Protection | Output Shortcut AMP Output over/under voltage High Frequency Overload Thermal Protect |
| Communication | |
| RS-232 | Connector: 3-pin, 3.5mm, Terminal Block Baud rate and protocol: Baud Rate: 19200, Data Bits: 8, Stop Bits:1, Parity: No, Flow Control: No |
| Compliance | |
| Certification | FCC, CE, UKCA, IEC62368-1:2018 |
| Power | |
| Maximum Input Power Rating | 100-240V~, 50/60Hz, 4A with PFC |
| Power Consumption | AC110V:81W:380BTU AC220V:76.7W:360BTU |
| Note | 1/8 Max. Power Output |
| Environmental | |
| Operating Temperature | 0~50°C |
| Humidity | 0-80% RH, Non-Condensing |
| Storage Temperature | -20~60°C |
| Physical Properties | |
| Weight | 5.21 kg (11.48 lb) |
| Housing | Metal |
| Dimensions (L x W x H) | 43.24 x 33.97 x 4.40 cm (17.02 x 13.37 x 1.73 in.) |
| Note | For some of rack mount products, please note that the standard physical dimensions of WxDxH are expressed using a LxWxH format. |

Diagram

▶ Diagram





Simply Better Connections

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