

PHA-1A

Pocket-size Hi-Res 192 kHz, 24-bit DAC & Amp

Easily connect to your portable digital music device or PC via USB input to enjoy powerful, pintsize Hi-Res audio performance. The PHA-1A can playback Hi-Res music files up to 192kHz/24-bit.



Bullets

- Compact and lightweight for easy portability and use
- Hi-Res audio DAC/amplifier supports up to PCM 192kHz/24 bit
- Direct Digital Connection for smartphones, DMPs, iOs devices, and PCs
- Solid Sound: Wolfson DAC w/separate operational & headphone amps
- Sleek and durable aluminum enclosure for dependable performance
- Built-in Lithium-ion battery for up to 6 hours battery life¹
- Charge the PHA-1A and a Walkman® while listening (requires cable, sold separately)
- Selectable gain supports headphone impedance from 8 to 600 Ohm
- Includes: Micro-USB and digital cables for Walkman® and Xperia®
- Securely fasten portable devices with included silicone belts (x2)

Features

Pintsize powerhouse!

The PHA-1A portable headphone DAC/amplifier affords a powerful high-resolution audio experience through your headphones and can decode a variety of Hi-Res PCM audio file formats up to 192kHz/24-bit format.

Flexible connectivity

Compatible with a wide array of digital devices. The PHA-1A features a standard USB type A connection, ideal for digital interconnectivity to compatible iOs and other devices, while a second microUSB is handy for digital interconnectivity with compatible Walkman® or Xperia® devices. A third microUSB connector provides for charging the device using a USB AC adaptor (sold separately).

High-quality amplification circuits

The WM8740 Wolfson DAC samples PCM audio up to 192 kHz/24 bit and the LME49860 operational amp delivers outstanding signal & performance with ultra-low distortion, low noise & high slew rate. A high-bandwidth TPA6120 headphone amp minimizes noise, delivering more than 120 dB of dynamic range to ensure music is heard with every detail.

Jitter-free audio

An internal, asynchronous USB 2.0 clock supports the highly accurate conversion of digital signals to analog sound. This precision clock signal generator also reduces timing inaccuracies when converting digital signals into analog waveforms. The result is superior audio performance with minimal noise and distortion.

Durable construction and materials

A compact aluminum enclosure protects the delicate internal circuitry from outside interference and impacts while alloy bumpers protect the volume knob and headphone connectors from external impact.

Rechargeable Lithium-ion battery

The internal rechargeable battery provides approximately 6 hours of Hi-Res music playback when connected digitally via USB input.¹

Flexible headphone support

A two position, side mounted gain switch allows you to optimize amplifier output level to match varying headphone impedances ranging from 8 to 600 Ohm. Select between Low or High settings to maximize your listening experience.

Supplied accessories

The PHA-1A comes supplied with the following: digital connecting cables for both Walkman® and Xperia® silicone®, one micro-B USB cable for PC and Mac®, two mounting bands, and one protective sheet.

iPod® / iPhone® / iPad® devices must use their own respective cables, not included.

General Specifications

AMPLIFIER	
Inputs and Outputs	Digital Audio Input(s): Inputs (2): USB Micro-B input (for PC, Walkman®, and Xperia®), USB Standard type A (for iPod® / iPhone® / iPad®)
GENERAL	
Amplifier Section	Impedance: Supported impedance: 8 – 600 Ohm (Normal – High)
Audio	Distortion: 0.01% or less (1 kHz) Frequency Response: 10 Hz – 100 kHz Sampling Frequency: PCM (PC connection Maximum 192kHz / 24-bit) Volume Control: Rotary
General	Case Type: Aluminum chassis Impedance: Supports: 8 Ω – 600 Ω Power On/Off: Integrated: Rotary power/volume knob Type of Use: Portable and Home
General Specifications	Recharging time: Approx. 3.5 hours (Connected to PC) Approx. 2 hours (Via AC-UD10, USB AC Adaptor, sold separately)
Inputs and Outputs	DC-In: Inputs (1): USB Micro-B input Digital Audio Input(s): Inputs (2): USB Micro-B input (for Computer, Walkman, and Xperia), USB Standard type A (for iPod® / iPhone® / iPad®) Output(s): Output (1): Headphones (stereo mini-jack, only 3-pole supported)
Power	Battery Charging (Approx): When connected to computer: Approx. 3.5 hours from empty to full When connected to AC outlet: Approx. 2 hours from empty to full Battery Indicator: Red LED when charging Battery Life (Approx): Approx. 6 hours Battery Type: Built-in Lithium ion rechargeable battery Output Power: Maximum output (when using built-in lithium-ion battery): Approx. 148mW + 148mW (8 Ω, 10% distortion) Approx. 80mW + 80mW (32 Ω, 1% distortion) Approx. 26mW + 26mW (300 Ω, 10% distortion) Power Source: DC 3.7 V: Built-in lithium-ion rechargeable battery DC 5 V: When charging via USB
Weights and Measurements	Dimensions (Approx.): 62 mm x 18.5 mm x 1490 mm (2.4" x .73" x .22") Weight (Approx.): Approx. 5.11 oz. (145 g) — rechargeable battery included
IN THE BOX	
Operating instructions (1)	
Quick Start Guide (1)	
Digital cable for Walkman (1)	
Digital cable for Xperia (1)	
Micro-USB cable (1)	
Protection sheet (1)	
Silicone belt (2)	

1. Actual battery performance varies based on settings, environmental conditions and usage. Analog connection provides approx. 17 hours of use and digital connection provides approx. 6.5 hours of use.

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