Product code: SE-1000-0001

# HP 304
# Studio Host Console

designed for AXIA

HP304 is a Console/headphone amplifier designed by XI audio for use in professional studio applications.
This low distortion/high power headphone amplifier provides output for 1 to 3 headphones. Each output is independently compensated and provides balanced power and loudness across headphone impedances from 32 - 600 ohms. The Electronically controlled volume and balance control has no mechanical parts, providing reliable maintenance free operation.
The host console integrates a button for talk back or mute, which can be wired to the microphone channel mute control and is often also used for studio to control room communication (talk back).
The status of the host microphone is signalled by two high brightness LEDs on each side the ON AIR decal 4 buttons and associated LEDs (A,B,C and D) can be wired for headphone source selection or customised for any other remote control function such as remotely selecting callers on a telephone hybrid. Switch and LED circuits are fully independent and electrically isolated between themselves and the head phone circuits.
The HP304 consoles are primarily to be used with Axia Livewire analogue audio nodes, GPIO modules, and Element or Smart surfaces. It can be directly connected to the Axia system via 3 RJ45 lines; one RJ45 connector for audio + power, a second for switches, and a third for LEDs.
The adaptor (GPIO dongle) allows for solderless connection to an Axia DB15 GPIO port by simple plugging in RJ45 leads.
The headphone amplifier can be powered by a 16V AC external power transformer, or via an RJ45 plug using a XI-Audiobridge centralised power distribution unit which delivers audio and +/- 18V DC over single RJ45 cable.
The HP304 is designed to be either placed on top of, or countersunk, into a desk surface


Specifications:

**Head phone amplifier**

| | | |
|---|---|---|
| Audio controls: | Volume: | UP button, DOWN button |
| | Balance: | Left button, Right button |
| Audio input: | Balanced: | >80 dB CMRR |
| Impedance: | 20 k Ohm | |
| Nominal/clip level: | +4/24 dBV | |
| Frequency response: | 20Hz .... 30kHz +0/-1 dB | |
| Distortion: Nonlinear: | 0.03% | @1kHz, 300 mW on 600 Ohm |
| | 0.1% | @1kHz, 1mW on 600 Ohm |
| Noise: | S+N/N | > 90 dB |
| HP Outputs: | Three head phone outputs | |
| Output voltage swing: | 32 Vpp | @ 10 kOhm load |
| Power: | 600 Ohm | 300 mW per output |
| | 80 Ohm | 410 mW per output |
| | 50 Ohm | 350 mW per output |
| | 32 Ohm | 280 mW per output |
| Power supply: | 16V AC 1.6 A requires external AC power adaptor | |
| Or | +18, -18V2 x 700 mA max via audio RJ45 (XI-Audiobridge) | |
| Audio input connector: | RJ45 STP CAT6 (shielded) | |
| HP connector: | Stereo jack 6.3mm (TRS) | |

**LED**

| | |
|---|---|
| Supply voltage: | 5V, common + (anode) |
| Current: | 15 mA for A, B, C and D |
| | 30 mA for ON AIR |
| Connector: | RJ45 |

**Physical**

| | |
|---|---|
| Size: | L: 102mm, W: 177mm, D: 36mm max |
| Cut out: | 76mm x 151mm |

**SWITCHES**

| | |
|---|---|
| Supply voltage: | passive, one side common max 50V |
| Contact resistance: | < 5 Ohms |
| Contact current: | 100 mA max |
| Connector: | Rj45 |

**Product order code: SE-1000-0001**

**Accessory:**

**AX-DB15-2xRJ45** Axia GPIO port dongle DB15 to 2x RJ45 adapter (AS-2000-0001)
**AB 808** Audio Bridge 8 port Power supply / distribution (SE-1000-0003)
**ABM 824** Audio Bridge 8 port Power supply and 4x MIC preamlifier (SE-1000-0002)