

AUDIONET

Scientific magic.

AMP I V2

28 Kilograms of Passion



This is a scientific paper.
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Thanks very much. We're glad you are with us.

28 Kilograms of Passion

The AMP I V2 represents an exemplary combination of pioneering Audionet technology with the company's typically detail-obsessed scientific application and experience-based knowledge.

“...That impulsiveness and drive with simultaneous delicacy ... is hard to get elsewhere ... ”

(Salzburger Nachrichten, Austria)

The sonic culture of the AMP I V2 is characterized by emotionality, sincerity and completeness. Performing quickly and with extremely fine resolution, it dazzles with its richness of detail. At the same time, the delivery is relaxed, devoid of the least hint of harshness or rigidity. Dynamic leaps are imparted with the necessary impact, without being merely loud. The bass is resolute and richly contoured. All this amounts to strikingly realistic holographic quality. And as a machine, the new Audionet discreetly stays in the background and creates a space within which the effect of the music can unfold – in all its artistry and emotionality.



Ultra-Linear-Amplifier

The AMP I V2 is fitted with state of the art of Audionet's ULA (Ultra-Linear-Amplifier) technology, which generated not only world-wide attention but won a number of awards. Originally invented for the purposes of medical engineering, this highly complex circuit topology provides cutting-edge measuring-technical results. Signal impurity remains below detectable levels even under the most strenuous of circumstances, whilst its outstanding feedback damping ensures that the loudspeakers perform at full capacity.

Cream of the Crop

Every sound-critical point in the AMP I V2 is fitted exclusively with the finest components procurable worldwide, many of which are custom-made for Audionet. For instance, the filter capacitors are manufactured according to our specifications by specialists in the USA; the bulk of our high audiograde electrolyte capacitors with a silk dielectric come from a Japanese audio manufacturer. We rely on mica capacitors, insert selected high voltage foil capacitors, deploy high-quality silver-gold alloys for our internal wiring and use the very best connector systems available from Furutech.



Architecture

The AMP IV2 sets standards regarding linearity, reflux damping and loudspeaker control. It is magnetically and capacitatively optimized and coherently assembled as a dual-mono amplifier. This minimizes feedback from magnetic fields and electrical interference rays, thus eliminating nearly all reciprocal influences between the amplification channels as well as between the input, correction and output stages.

“... Constructed without compromise, a powerful amplifier with excellent sound properties ...”

(Stereoplay, Germany)

In order to optimize its high-frequency attributes, circuit size has been radically reduced. The remaining signal paths are kept to a minimum and are free of sound-critical components such as coils, chokes or relays. All in all, distortion is near-eliminated. The damping factor pushes

the possibilities to the edge. The input stages are double-differential pre-stages with monolithic dual FETs separately powered by an 80 VA toroid-core transformer with separate windings for each channel. Their gain-bandwidth product exceeds one Gigahertz. Double bootstrapping decouples them from the power stages. Each output stage possesses four power MOSFETs.

“... An excellent amplifier by any measure ...”

(Highendnews.com)

Their bias current (0.4 A) is actively controlled. They are supplied by two 700 VA toroid-core transformers and four fast, impulse-stable high-current capacitors with filtering capacity totalling 188,000 μ F. Distortion is compensated-for locally by a real-time correction stage. The voltages are smoothed as rapidly as possible by optimized discrete MOSFET regulators. A control unit with separate power supply monitors DC, HF, temperature and overload. If necessary, it disconnects the AMP IV2 from the mains supply, thus ensuring absolute operating safety.



Finish

Front panel:

Brushed aluminium, black anodized, light grey printing
Brushed aluminium, silver anodized, black printing

Display:

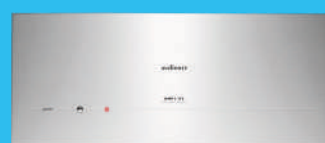
Red or blue

Cover and heat sink:

Brushed aluminium, black anodised

Chassis:

Sheet steel, black varnished



Function

Stereo power amplifier.

Special Features

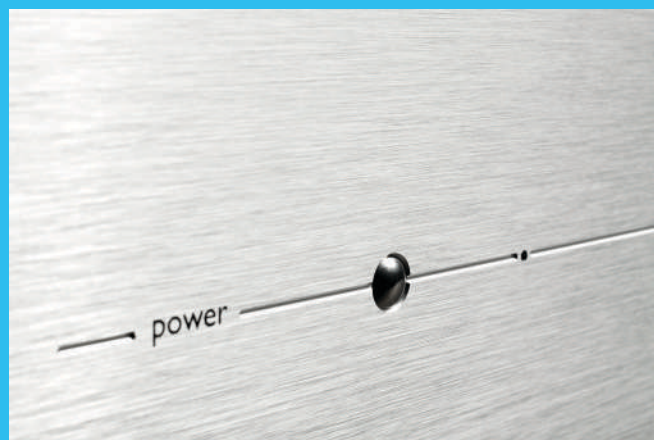
- Audionet ULA technology (Ultra-Linear-Amplifier)
- Dual-mono amplifier
- Magnetically and capacitatively optimized construction
- Signal paths are kept to a minimum
- No capacitors and electromechanical components in the signal path
- Completely DC coupeld
- Separate power supply for input and power stage
- 2 toroid transformer, each with 700 VA
- 4 impulse-stable high-current capacitors with filtering capacity totalling 188,000 μF
- Discrete, extremely fast and stable driver and output stages
- Control unit for HF, DC, temperature rise and overload
- Remote activation via Audionet Link (optical waveguide)

In- and Outputs

- Audio inputs: 2 Furutech RCA line, gold plated, teflon insulated
- Loudspeaker outputs: 2 pair Furutech 4mm-jacks, rhodium plated
- Remote activation: 2 Audionet Links, optical (in- and output)

Technical Data

- Output: 2 x 200 Watt into 8 ohms
2 x 300 Watt into 4 ohms
2 x 450 Watt into 2 ohms
1 x 600 Watt into 8 ohms (bridged)
1 x 900 Watt into 4 ohms (bridged)
- Filtering capacity: 188,000 μF
- Frequency Response: 0 – 300,000 Hz (-3 dB)
- Damping Factor: > 10,000 @ 100 Hz
- Harmonic Spectrum: k2 typ. -120 dB for 25 Watts @ 4 ohms
k3 typ. -123 dB for 25 Watts @ 4 ohms
- Intermodulation: < -110 dB SMPTE 100 Hz : 20 kHz, 4 : 1, 50 W @ 4 ohms
- Channel Separation: > 100 dB @ 1 kHz
- THD + N: < -102 dB at 1 kHz, 35 Watts @ 2 ohms between 20 Hz and 20 kHz
- SNR: > 106 dB at 10 Veff
- Input Impedance: 37 kOhm, 220 pF
- Power Consumption: max. 1,500 W
- Mains connection: 120 or 230 V, 50...60 Hz
- Dimensions: width 430 mm
height 175 mm
depth 315 mm
- Weight: 28 kg



Scientific Breakthroughs: Audionet Key Technologies

Audionet-Ultra-Linear-Amplifier ULA

Audionet's worldwide respected and award-winning ULA (Ultra Linear Amplifier) technology is of fundamental importance for our outstanding technology. This highly complex circuit topology, initially conceived with medical engineering in mind, delivers metrological results which mark a limit of feasibility. Even under the most severe strain or in other stress situations signal impurities are barely traceable, and the high return loss guarantees that even the most demanding loudspeakers will perform faultlessly up to their utmost limits.

Audionet Operational Amplifier

Audionet operational amplifiers (OP) are used in our devices at most sound-critical parts of the circuit design to deliver the very best tonal results. Usual operational amplifiers, available in different quality and price ranges on the global market, can't satisfy our core demands for perfect sound quality. Even the most expensive ones with the best results on paper aren't perfect. That's why we have designed our own operational amplifier technology. Any single Audionet OP contains at least 86 parts and components, and our topology ensures an impressive gain-bandwidth-product of 1 GHz.

Asynchronous Upsampling

With the D/A conversion we've focused our highest attention on eliminating jitter, the wobbling of digital signal slopes. Jitter faults curtail the sound reproduction in every respect: imaging, stage and depth rendition will be impaired. The conversion is done using Audionet's Intelligent Sampling Technology which guarantees an absolutely flawless recovery of the analogue signal from the digital bit stream. For this purpose the data are sent through a sophisticated, two-stage filtering and decoupling procedure. First the input data are filtered with Audionet's proprietary software using a powerful signal processor and upsampled synchronously. The filters have been designed under audiophile aspects with regard to an optimised transient and frequency response. The thus optimised data are then resolved through an asynchronous upsampling procedure at 192kHz/24bit. Hereby the bit stream is completely isolated from its input clock and its associated jitter. The data are then fed to high-performance converters, which are clocked by special ultra-precision quartz crystals, and individually processed per channel into analogue signals. This method ensures that jitter faults are

almost entirely eliminated in the analogue signal. No information gets lost and every bit of information will be processed at the right time, bringing forth an unmatched clarity, room depth and stage imaging.

Double-Precision-Bassmanager and Parametric Equalizer

The digital signal processing is accomplished with efficient signal processors and our proprietary Audionet software which was developed and continuously improved exclusively under audiophile aspects in more than 15 years of painstaking scientific labour.

Audionet Listening Room

Listen and be enlightened!

In Audionet's quite incomparable listening room.



The double precision bass management uses a 48bit resolution at all sampling frequencies. Even the very lowest frequencies are therefore precisely reproduced and accurately processed. The bass manager offers freely selectable cutoff frequencies, filter Q factors and subwoofer phases. Thus you can perfectly integrate your subwoofers into the system and into the room.

The digital parametric equalizer uses Minimum Phase Equalizers (MPE) both for the main channels and subwoofer channels. For each MPE the filter type, frequency, gain and Q factor can be selected within an unusually wide adjustment range and disturbing room interference and tonal annoyances efficiently compensated. In combination with CARMA, our computer aided room acoustics measurement system, it is possible even for non-professionals to reach nearly professional results.

The delay manager has an adjustment range of up to 7 m and automatically calculates the delay times from the distances.

Reference

Salzburger Nachrichten, Austria:

"That impulsiveness and drive with simultaneous delicacy as with the latest power amplifier AMP I V2 is extraordinarily hard to get elsewhere."

Highendnews.com:

"An excellent amplifier by any measure, and definitely one for the shortlist."

Stereoplay, Germany:

"Constructed without compromise, a powerful amplifier with excellent sound properties for a surprisingly reasonable price. Absolute Top Class I, Reference."

Music Home Studio, Netherlands:

"This stereo poweramplifier is build up extremely solid. ... The sound is open, stable, subtle, detailed and gives much knowledge of the recording conditions. ... His control over loudspeakers is amazing. The presentation of the music is natural and casual. The reader will see that this is a kind of magic."

High Fidelity, Sweden:

"This high-tech combination from Audionet offers a unimpeachable musical odyssey and simply a sound quality of international top class. ... This sound bears comparison with any other products, and this includes even the great American devices. ... A tough nut for the established labels of the market."

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Sources

PLANCK
VIP G3
ART G3



Integrated Amplifiers

WATT
SAM G2



Preamplifiers

STERN
PRE G2
PRE I G3
PAM G2



Power Amplifiers

HEISENBERG
MAX
AMP
AMP IV2



Network Components

DNP
DNA 2.0
DNA I
DNC



Power Supplies

AMPERE
EPX
EPS G2

