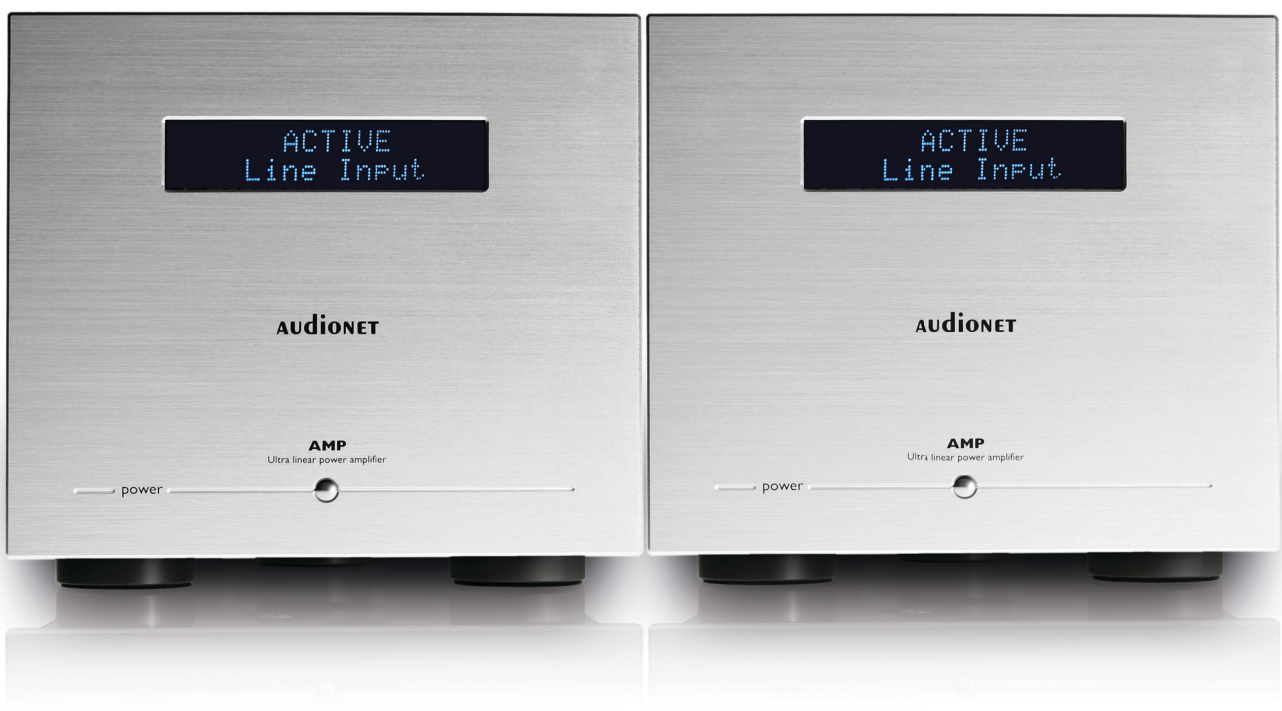
AUDIONET

Scientific magic.

AMP

Blockbusters for Demanding Listeners



This is a scientific paper.
For holographic images and optimal resolution please do visit your audionet expert dealer.
Thanks very much. We're glad you are with us.

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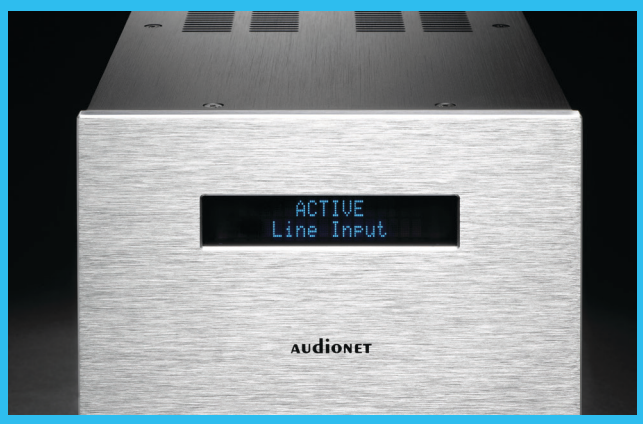
Blockbusters for Demanding Listeners

The new Audionet AMP high performance power amplifiers are true mono-blocks that combine remarkable sound potential with high-end technical possibilities. A pair of blockbusters for real connoisseurs.



Air plays a key role in regard to our AMP mono-blocks. For one thing, the pair needs some air around them in order to permit the diffusion of the heat either block generates. And for another, air is part of the sound experience they offer: every fragment of a beat, every acoustic detail is offered to the listener in transparent spatiality, as if encapsulated in the purest air. Weighing in at 22 kilograms, the two mono outputs deliver a maximum of airiness and vivid rendition, and may well bring tears of joy to the eyes of more sensitive listeners. The AMPs play with fascinating ease, impressing us with acoustic permeability, tonal accuracy and striking macro- and micro-dynamical precision. The musical reproduction is transparent, airy and colourful, but remains agreeably relaxed at the same time.

> "...The sound: Simply natural and in one word: TOP! ..."
>
> (AV Extreme, Greece)

Ultra-Linear-Amplifier

Our AMP mono-blocks represent the state-of-the-art of Audionet's internationally acclaimed ULA (Ultra-Linear-Amplifier) technology. This highly complex circuit topology, which we originally invented for medical engineering, delivers results that push the boundaries currently feasible in measuring technology. Even under maximum strain or in some other borderline situation,

> "... Crème de la Crème of high-end amplifiers ..."
>
> (i-fidelity.net)

the incidence of signal impurity remains almost below detectable levels, whilst outstanding feedback damping ensures that the loudspeakers perform to the limits of their capacity.

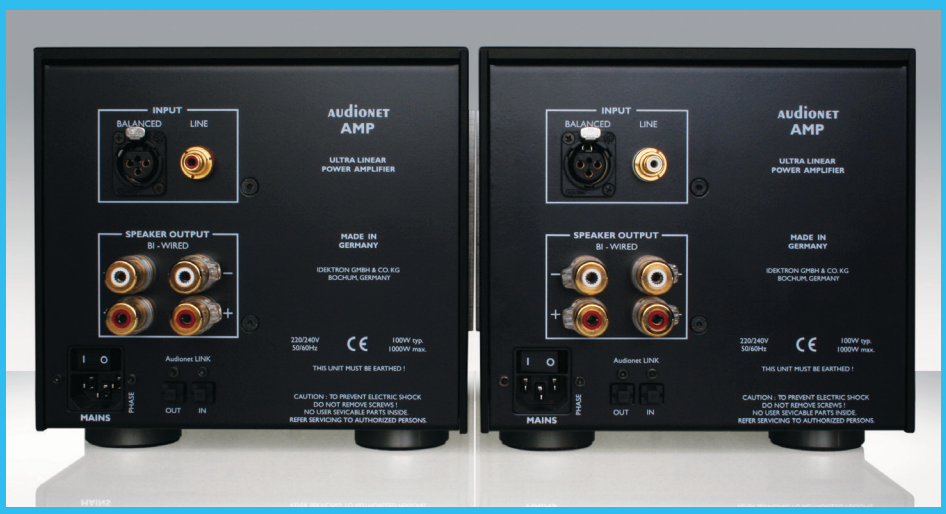
The Cream of the Crop

The efficiency and precision of ULA is such that even the sound properties of components and materials are clearly audible. As a result, reason, every sound-critical point in the AMP is exclusively fitted with the finest components obtainable worldwide, in some cases custom-made for Audionet. The 47,000 µF filter capacitors, for instance, are manufactured according to our specifications by specialists in the USA. Equipped with a silk dielectric our high audiograde electrolytic capacitors come from Japan. Our low-loss capacitors are made of mica, a silicate manufactured to order in India and China. We use selected high-current foil capacitors with a minimal loss angle, high-quality silver-gold alloys for our internal wiring and the very best connector systems available from Furutech.

Moreover, during the manufacturing process of every single mono-block, all the relevant components are re-checked, measured and matched in order to guarantee optimum performance.

Architecture

In order to guarantee absolute channel separation, the AMP pair is designed as mono amplifiers. The powerful, extremely stable performance of the AMP ensures interference-free operation even in extreme range.



The magnetically and capacitatively optimized assembly of the mono-blocks largely eliminates both feedback from electrical interference rays as well as reciprocal influences between the amplification channels during the amplification process. In order to optimize the high-frequency attributes and the velocity attained by the AMPs, miniaturization techniques were consistently deployed. The remaining signal paths have been kept to a minimum, and contain no sound-impairing components such as coils, chokes or relays.

The AMPs are equipped with RCA and XLR inputs, which are electronically switched via gold-plated precision relays. The input stage is configured as double-differential amplifier with a low-noise, monolithic dual FET, thus making the end amplifiers electrically independent of the input signal and avoiding harmful interaction with the power source.

The input stage is separately powered by an 80 VA toroid-core transformer. With a gain-bandwidth product exceeding one Gigahertz, it is additionally decoupled from the power stages by double bootstrapping. The output stage is equipped with six power MOSFETs with actively controlled bias current amounting to 0.6 A. Thanks to a unique and highly elaborated correction stage, distortions are linearized locally in real time; the negligible level of total distortion is scarcely detectable, even with the most sophisticated measuring methods. The supply voltages are stabilized as rapidly as possible by optimized discrete MOSFET regulators, whose basic supply comes from an encapsulated 850-VA toroid-core transformer and two special, fast and impulse-resistant high-current capacitors with total filtering capacity amounting to 188,000 µF.

A microprocessor unit controls all functions and permanently monitors DC, HF, temperature and overload, and disconnects the AMP from the mains supply in the case of faults. A large, two-line display indicates fault sources in plain language. Remote activation is possible optically via Audionet-Link as well as signal-dependently in three sensitivity ranges. The control unit is separately supplied by a transformer.

> “... I cannot imagine myself having a HiFi life without this mono amplifier ...”
>
> (Highendnews.com)

Finish

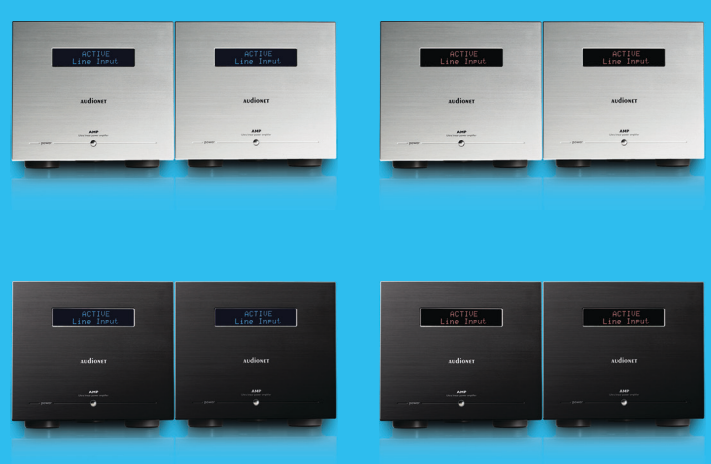
Front panel:
Brushed aluminium, 10mm, black anodized, light grey printing
Brushed aluminium, 10mm, silver anodized, black printing

Display:
Red or blue

Cover:
Brushed aluminium, 6 mm, black anodised

Sides:
Brushed aluminium, 4 mm, black anodised

Chassis:
Sheet steel, 2 mm, black varnished



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Function

Microprocessor controlled mono power amplifier.

Special Features

- Audionet ULA technology (Ultra-Linear-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
- Toroid transformer with 850 VA
- 2 impulse-stable high-current capacitors with filtering capacity totalling 82,000 µF
- Discrete, extremely fast and stable driver and output stages
- Automatic mains phase detection
- Large-size, two-line VDF-display
- Screen saver
- Remote activation over Audionet Link (optical waveguide) and via input signal (3 switchable sensitivities)
- Microprocessor unit controls all functions and permanently monitors DC, HF, temperature and overload

In- and Outputs

Audio inputs:	1 Furutech RCA line, gold-plated, teflon insulated 1 XLR balanced, gold-plated
Loudspeaker outputs:	2 pair Furutech 4mm-jacks, rhodium-plated
Remote activation:	2 Audionet Links, optical (in- and output)

Technical Data

Output:	200 W into 8 ohms 350 W into 4 ohms 550 W into 2 ohms 750 W into 1 ohms
Filtering capacity:	82,000 µF
Frequency Response:	0 – 300,000 Hz (-3 dB)
Damping Factor:	> 1,800 @ 10 kHz > 10,000 @ 100 Hz
Harmonic Spectrum:	k2 typ. -117 dB for 25 W @ 4 ohms k3 typ. -140 dB for 25 W @ 4 ohms
Intermodulation:	< -110 dB SMPTE 100 Hz : 20 kHz, 4 : 1, 50 W @ 4 ohms
THD + N:	< -105 dB at 1 kHz, 35 W @ 2 ohms between 20 Hz and 20 kHz
SNR:	> 122 dB
Input Impedance:	RCA: 37 kOhm, 220 pF XLR: 3 kOhm, 170 pF
Power Consumption:	max. 1,000 W
Mains:	120 or 230 V, 50…60 Hz
Dimensions:	width 215 mm height 190 mm depth 500 mm
Weight:	22 kg / mono block

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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.

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Reference

i-fidelity.net:

"Listening to songs with the Audionet amplifier trio each title gains in expressiveness, timbre and temper. You sit in your armchair, listen to Pink Floyds 'The Wall' and be pleased about the helicopter (the whistling of the helicopters turbines brings also 30 years after appearance of the album still large pleasure), and then you get suddenly goosebumps … The Audionets deal regular with amplifiers of the competition; they need however in best Klitschko manners rarely more than three rounds, in order to knock the opponent out. … There's simply nothing to beef about: plenty of power, smallest distortions and absolutely first-class signal-to-noise ratios. These two Audionets belong to the Crème de la Crème of high-end amplifiers."

Highendnews.com:

"How good is this mono amplifier from Bochum in Germany? Well, I can tell you that I cannot imagine myself having a HiFi life without this mono amplifier. So until someone convince me otherwise, this pair of mono amplifier will remain in my listening room as my reference. I consider myself to 'have seen the light at the end of the tunnel'."

Stereoplay, Germany:

"State-of-the-art mono amplifiers ... Absolute Top Class I, Reference"

AV-Magazin, Brasil:

"In summary it is one of the best price-performance ratio ever."

en.audionet.de

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Sources
VIP G3
ART G3

Integrated Amplifier
SAM G2

Preamplifier
PRE G2
PRE I G3
MAP I
PAM G2

Power Amplifier
MAX
AMP
AMP VII
AMP I V2
AMP V
AMP IV
AMP III

Network Components
DNP
DNA 2.0
DNA I
DNC

Power Supply
EPX
EPS G2