

# TRIAD Audio Presents LISA III

The LISA III Portable headphone Amplifier represents the accumulation of over 6 years into the refinement of My Buffered Multi-Loop Portable Headphone Amplifier Topology Utilizing a Dedicated ground Channel to Drive the Headphones Differentially and avoid the Contamination of the Systems Quiet Ground by the Reactive Load created from Back EMF (Electromotive Force) of the Headphone drivers. The Original version of this Amplifier (The PPA), More commonly Known as "Phil's Portable Amplifier". "Defined The Art" for Portable Headphone Amplification. This Amplifier retains the Basic Core structure of the PPAv2, However adds a substantial size Reduction and a more efficient Multi-Loop Negative feedback Circuit topology than the Original. The LISA III is intended to provide Reference quality reproduction of Audio Information into the Finest Dynamic headphones available; however is slim enough to fit into an overcoat pocket or in with your PDA This Amplifier will effortlessly drive any Quality Dynamic headphone to astonishing loud Listening levels with ultra low noise and distortion. Every aspect of technical performance that pertains to sound quality is State of the Art. Frequency response is Ruler flat from DC to beyond the Ultrasonic Band. This assures no phase shift throughout the Audio range to completely eliminate time smear caused by Excessive Group Delay. Noise and Distortion are vanishing low and are orders of magnitude below audibility. Thanks to Dyn-O-Bias III this impressive performance only cost about 22 mA resulting in a typical runtime of about 7 Hours of operation at normal listening levels, With 150 MAh rechargeable 9 Volt batteries or up to 25 Hours on Alkaline and over 50 Hours with Lithium 9 volt Non Rechargeable Batteries.

## Quality components matter in Audio Amplifiers

Electrolytic capacitors used in the critical Voltage gain stage circuits to filter noise off the power supplies and store energy are **OS-CON** types. OS-CON is short for "Organic Semiconductor" a completely new type of capacitor. OS-CON's have much lower high frequency impedance characteristics compared to typical aluminum oxide electrolytic capacitors. This allows OS-CON types to shunt more high frequency noise into ground and away from the active devices. The Low High frequency impedance of OS-CON'S allow the Elimination of Metalised Film capacitors in the Power supply that is typically required to By-pass the conventional Electrolytic capacitors. The Only Film capacitors employed are in the Bass boost and the Ground Channel the Ground Channel utilizes the lowest loss capacitors available. **Polystyrene** Film and Foil Type Polystyrene capacitors have long been recognized as the king of audio quality capacitors owing to their outstanding Dielectric Absorption characteristics. The Bass Boost Circuitry of the LISA III Employ's capacitors of Polypropylene with a Metalised Film, This type is the lowest loss best sounding capacitor for values used in the Bass Boost Circuit.

The Remaining Component Quality is first rate with 1% Mil Spec RN-55 Dale resistors. The Volume control is the Alps **RK097**; this is chosen for its quiet operation and long life as well as its diminutive size. The Chip set is at the Leading edge of Analog Monolithic technology and incorporates the splendid sounding **AD744** Operational Amplifier in the Right and Left Amplifier channels. The Wide bandwidth and ultra low noise of the **AD829** serve Duty in the ground channel so as to provide ultra low output impedance well beyond the Operating range of the Right and Left channels. The Output Current to the Headphone Load is provided by Three (3) discrete component Dynamically Biased High Current Output stages providing plenty of current for any dynamic headphone.

This splendid circuit is built upon **FR4** Glass Epoxy Printed circuit board with two full ground planes, one on the Component side of the PC board and the other of the same geometry upon the Bottom of the Board. All electronic components mount upon the PC board including the switches and headphone jack to eliminate the rat's nest of wires most often found in other Amplifiers. By board mounting each and every components makes it possible to control exactly where each conductor is located and thus avoid any possible interaction between foils, moreover the twin ground plains form a complete copper shield around all foils regardless of what side of the PC Board they are located on ground plane references all stray capacitances to ground and not to an unintended alternate path. Only the input Jacks are not PC board mounted, however we provide foils right at the point that the jacks connect to the Jacks eliminating long wire lengths. This type of construction results in improved Reliability by elimination of interconnecting wires. The All Board mounted assembly Concept maintains close unit-to-unit consistency and allows lower manufacturing costs to allow us to bring such a superb product to you at an extremely attractive price.

The Chassis represents the pinnacle of efficiency by utilizing an existing Extrusion augmented with tasteful front and rear panels of Solid machined Metalwork. Optionally available are custom Wood Panel fittings on-to the standard Extrusion with Minimum delay and Prompt dependable delivery of this Fine Audiophile component. The Chassis is tasteful in design, resulting in clean attractive styling that is at home both ultra Modern interior environments as well as speaking very favorably to others about your Style while traveling.

Just one Audition is all it will take for you to know you are listening to a unique Amplifier with Emotion and dynamics both in abundance, yet allows the Music to naturally fade into a velvety background of silence. Texture those subtle shadings within your music is something LISA III is so good at revealing that other Amplifiers may sound Boring in comparison.

The primary reason for TRIAD Audio to introduce such an incredible Headphone Amplifier at so attractive of a price represents our labor of Love we have for our Craft and the desire to allow more people to enjoy the Same High Quality sound they get from fine Audiophile Home Systems while away on Holiday or traveling. The splendid sound of this Definitive Product will leave you refreshed and relaxed as you now can enjoy the same thrilling sound quality you are used to at Home anywhere you can go and once you have arrived at your destination Time spent listening to your favorite Music reproduced in all its stunning glory with LISA III may take you places not shown on any map.

The various electronic and mechanical component parts within the Audio system have as much of an impact upon sound quality as they do with areas of Reliability and performance. It is with sensibilities attuned to the sound quality of an Electronic component in addition to its technical aspects that is used in the hand selection process for LISA III components.

The definitive technology within the LISA III is supported with component Parts that are hand selected for the highest performance and sound Quality. the chosen components play well together, For this a Synergistic approach is used to assure complete system harmony and have an outcome that is far greater than the sum of its parts. LISA III is about as Good as Portable Amps Get so far to date