

TRIAD Topology Advantages

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Active Three Amplifier Channel TRIAD mode of Operation

Three channel Amplifier topology brings the Best of balanced outputs in Audio power Amplifiers with complete compatibility for standard 3-wire Unbalanced headphones, In addition to the left and right channels in this amplifier, the ground return of the headphone is actively driven by a third channel of the same topology and polarity. The ground channel amplifier sources or sinks the return current from the transducers, which would otherwise have been dumped into the systems ground and cause a reduction in low-level detail and added Noise. By employment of an *active Ground Channel* responsibility for the high current reactive load of the headphones shifts from signal ground to the tightly regulated power supply rails, thus removing the primary source of Distortion caused by signal ground contamination. The headphone transducer "sees" symmetrical output Stages with equal impedance and transfer characteristics on sides, rather than an output Stage on one side and the capacitor bank for the power supply on the other. This results in lower output impedance, greater linearity and reduced stereo crosstalk.

This is the finest configuration, and offers improved performance by having an active ground channel amplifier in addition to the normal Left and right channel Amplifiers For the headphone's shared "ground return" wire. This ground channel amplifier symmetrically sources or sinks the return current from the transducers, which would otherwise have been dumped into signal ground or power supply ground. This definitive TRIAD technology drives the headphone transducer in a balanced complementary manner because of symmetrical output buffers with equal impedance and transfer characteristics on each side of the headphone Driver rather than the conventional method of an amplifier on one side and the capacitor bank of the power supply ground on the other. This results in lower output impedance, greater linearity and reduced stereo crosstalk.

Three amplifier channels (left, right, and ground) which use the same Circuit topology in a non-inverting configuration to avoid the phase and Crossover problems inherent with Balanced Systems because of Phase inversion in one of the Balanced Amplifiers... The ground channel offers all the Advantages that balanced System doses however with Improved Linearity resulting from a truly symmetrical in phase Amplifier design.