
Subject: Re: Pi Crossover Boards and Biamping
Posted by [rkeman](#) on Tue, 02 Apr 2013 18:43:36 GMT

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Passive biamplification in an audio/video receiver (AVR) allows the load to be spread over two amplifiers per channel rather than one. The advantage is that a greater porportion of the available power will be dedicated to the (front) speakers needing it most, the power will be spread over twice as many output devices (without a noise penalty!), and any clipping that occurs in the channel dedicated to one driver is not directed into the other. The degree of frequency isolation, while less than with an electronic crossover, is still substantial i.e. the channel driving the woofer "sees" a rising impedance above the low pass frequency and sources less current as a result. Band-limiting amplifiers is inherently good!

Some audio/video receivers can only really handle inefficient multi-way direct radiator or planar magnetic speakers effectively by employing this mode of operation. High sensitivity loudspeakers that present a benign load (such as the 3, 4, 6, and 7Pi) may benefit less, but it costs next to nothing to do and the extra channels of amplification aren't typically used otherwise. Traditional biamplification still occurs in most systems because the bass management system in the AVR (an electronic crossover) feeds the subwoofer(s).
