
Subject: Charge Coupled Crossover Capacitors
Posted by [AudioFred](#) on Tue, 27 Sep 2011 14:25:25 GMT
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Anybody ever tried this? It seems easy enough to do, and not expensive unless you're using boutique brand caps: http://www.enjoythemusic.com/diy/0911/charge_coupled_crossovers.htm

Subject: Re: Charge Coupled Crossover Capacitors
Posted by [Wayne Parham](#) on Tue, 27 Sep 2011 15:31:02 GMT
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I used to do that (like in the 1980s), but have stopped. It's pretty important with electrolytic capacitors, even the non-polarized types.

Capacitors have really gotten so much better in the past couple decades, especially the ones we use in passive crossovers. Polypropylene dielectric caps are pretty good sounding to me these days. You can barely see any zero-crossing non-linearity in measurements of a modern poly cap.

But still, this procedure isn't smoke-and-mirrors, it's real. A couple decades ago, I don't think you could make a really good passive crossover without CC. Electrolytic capacitors simply have to be charged to be anywhere close to linear.

The Sound of Capacitors

Subject: Re: Charge Coupled Crossover Capacitors
Posted by [gofar99](#) on Tue, 27 Sep 2011 16:42:26 GMT
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Hi, Yes a bit out of my usual design area, but it is correct. One thing I would add is that in the article he used 9 volts to charge the caps and correctly indicated that you could handle 9 volt signals. True as far as it goes. I suspect that the 9 volts is peak not RMS. This is because you charged the cap with a very high resistance low current and the signal is from a low impedance high current source and could easily swamp the initial charge. 9 volts peak is only about 3 watts. As Wayne noted though, caps have become a lot better since then and many new designs eliminate the dreaded high value output cap altogether.
