

Solid State Radio

M. Simon



I belong to a vast underground of secret parts lovers. To wit the 365 pF air variable capacitor. Singles and duals. With ball bearing shafts and vernier control dials. I get all jiggy thinking about them and the smell of newly machined phenolic. No wonder they only serve my kind around here.

I found that you can buy such capacitors new these days from practitioners of the ancient art of original solid state radio. The [Xtal Set Society](#) [1], which is devoted to the art and science of the crystal radio. They have revived industry practices that haven't seen the light of day for decades. But they are not absolute purists about it. In addition to [galena crystals](#) [2] mounted in Woods metal, they also offer 1N34A germanium diodes. Three for two dollars. Galena has special resonance for me these days as I live about an hour and a half from there. We used to visit it often when my kids were younger. They loved the town blacksmith shop. The smithy was very nice to me. He gave me an [Estes Model Rocket Launcher](#) [3] (the kids were into it back then) he made out of hammered iron strips. I never visited the galena mines.

In terms of old time craft/technology, I especially liked the instructions for winding spider-web coils (Litz wire - tasty) that can be found in this sample of **The Xtal Set Society** newsletter: [March 2004 \[pdf\]](#) [4].

And as for those capacitors I was rhapsodizing about? You can find them at [a 365pF ball bearing shaft capacitor with a built in 8:1 vernier drive](#) [5]. Scroll up and down for other parts.

And Solid State brings to mind the CK722 transistor. Harking back to the days of my misspent youth. There is a page full of old transistor manuals (and tubes - great warmers on a cold winter day) available at [Tube Books Online](#) [6]. Look for "Transistor Techniques". There are quite a few CK722 circuits in that book. The downloading is a bit slow from the site - be patient. The price is right. The book gives a very nice feel for what the early days of experimenting with transistors was like.

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Published on Electronic Component News (<http://www.ecnmag.com>)

Source URL (retrieved on 09/18/2014 - 7:20am):

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