

Minimalist Huff & Puff

Written by Hans Summers
Friday, 04 September 2009 22:34 -



Here are four ultra-minimalist designs for Huff Puff stabilisers. The inspiration for these designs comes from my [2-chip Frequency Counters](#) (see picture, right) and subsequent correspondence with Arv Evans K7HKL. These simple designs represent such a massive simplification compared to existing designs that I hope they will be more accessible to a larger number of builders. For best performance, I still believe that there is nothing to compare to the "fast" type designs developed by Peter Lawton G7IXH. The first three simple designs on this page are the classic, or "1-bit" model. They are directly comparable to the original Huff & Puff circuits in terms of operation and performance. The final design uses only 2 IC's but implements the G7IXH "fast" architecture!



[2-chip VFO / Huff & Puff Stabiliser](#)

The first design used 2 IC's and includes VFO and stabiliser.



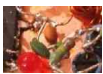
[3-chip VFO / Huff & Puff Stabiliser / Frequency Counter](#)

This deluxe version adds a 74HC390 IC to include an 8 LED BCD frequency counter!



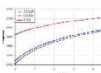
[1-chip Huff & Puff Stabiliser](#)

Ultimate extreme minimalism. How to make a working Huff & Puff stabiliser using a single IC!



[2-chip VFO + "fast" Stabiliser](#)

At the price of only slightly greater complexity, it is possible to implement a VFO + "fast" stabiliser architecture!



[5mm LED Varicap measurements](#)

Some measurements on standard 5mm red LED's to establish their suitability in VFO tuning applications.

Many thanks to [Arv Evans K7HKL](#) who drew the very nice [http://www.k7hkl.com/circuit-diagrams/](#) circuit diagrams!
[op.net](#)

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