

Re: Missing Schmitt Gates??

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- *From:* D from BC <myrealaddress@xxxxxxxxxx>
 - *Date:* Tue, 04 Dec 2007 15:40:47 -0800
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On Tue, 04 Dec 2007 22:17:36 GMT, Rich Grise <rich@xxxxxxxxxxxxx> wrote:

On Mon, 03 Dec 2007 19:07:08 -0800, John Larkin wrote:

On Mon, 3 Dec 2007 17:57:28 -0800, "Joel Koltner"

"D from BC" <myrealaddress@xxxxxxxxxx> wrote in message

A crystal needs a good linear amp.

Everything is linear if you look closely enough...

I am being a little obtuse here -- the kind of oscillator I was thinking of was your canonical microcontroller/FPGA clock that doesn't need to be particularly accurate -- it's common to use 50 or even 100ppm rocks in such systems; this is a completely different league of oscillator than those you build for, e.g., fancy RF applications where you're after 2.5ppm or better.

I was never able to get the Schmitts to oscillate anywhere near the supposed crystal frequency.

Maybe it's a little late in the thread to bring this up, but I'd think that with the Schmitt characteristics of the input, the crystal would have to be drastically overdriven, just to get the gate to notice that there's a feedback signal.

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But I wouldn't have any qualms about an HCU inverter or 3. ;-)

Cheers!
Rich

I think Ht for Logic with Schmitt inputs is about 1V @ 5V.

A crystal..well... isn't it just tiny jiggling piece of rock?

Ooops...I might be thinking piezo..

Damn..forgot all my crystal theory...cuts, shapes, modes and all that jazz.

Anyways.. I can imagine that one has to be kind to a tiny piece of crystal and not bash it with lots of drive.

However....depends on the precision required..

As someone posted, for clocking an uC or CPU ...who cares about some drift..

D from BC

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