Re: Frequency Halver

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bill.sloman_at_ieee.org
Date: 03/19/05

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Robert Baer wrote:
> *bill.sloman@ieee.org wrote:*
>
> > *Sorry John, but I think you have just described a frequency* doubler,
> > *rather than a frequency halver.*
> >
> > *For what it is worth, I'm pretty sure that there is no analog* technique
> > *that will halve the frequency of a sine wave. It is easy enough to* use
> > *a largely digital circuit to produce a sine wave which follows half* the
> > *average frequency of of an analogue sine wave, and if you got* really
> > *cute, you could track the phase of the input sine wave and produce* an
> > *output whose phase varied at half the rate − though since the* maxima
> > *and minima of a sine wave don't tell you much about the* instantaneous
> > *phase, this isn't going to be perfect either.*
> >
> > −−−−−−−−−
> > *Bill Sloman, Nijmegen*
> >
> *Incorrect; over 40 years ago we did that at Sylvania with a* tetrode.
> *See a previous response by me earlier in this thread.*

You didn't halve the frequency of a sine wave, you used the input frequency to excite a tuned circuit that was resonant at roughly half the frequency of the input circuit, a much less direct relationship.

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Bill Sloman, Nijmegen