

Re: Dumb FFTquestion

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- *From:* "BobW" <nimby_NEEDSPAM@xxxxxxxxxxxxxxxx>
 - *Date:* Wed, 24 Oct 2007 14:21:33 -0700
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"Martin Griffith" <mart_in_molina@xxxxxxxx> wrote in message
<news:7ossh39f02ol33oca07jnspl6k6hcldkrl@xxxxxxxx>

I'm doing some sims in LTspice, that take a long time, 30+ minutes...so if I just sample say 20mS, using the Mr Blackman's window, at what LF should I ignore the results?

Truthiness makes me want to think that it is 100Hz, but the plots are deceiving me

Martin

Martin,

Are you familiar with what windowing does? Remember, the FFT takes your data set and treats it as if it were a continuous signal. That is, if your data set is 20ms long then it will (effectively) repeat that set over and over again and look at the frequenc content of this (continuous) signal. If, when the pattern repeats (at 20.00x ms) there is now a large discontinuity, then this will created bogus high frequency components that really aren't in your original signal. Windowing is an attempt to "soften" those discontinuities and reduce these high frequency artifacts.

In terms of the low frequency stuff, if you truncate your signal then you might lose some of the low frequency information, but I don't think it could add any low frequency artifacts (but I'd have to really think about that to be sure).

Bob

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