

## Re: TDR, VNA and FFT...

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- *From:* Joerg <[notthisjoergsch@xxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:notthisjoergsch@xxxxxxxxxxxxxxxxxxxxxxxxxxxx)>
  - *Date:* Sat, 13 Jan 2007 17:56:05 GMT
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Fred Bartoli wrote:

Joerg a écrit :

Bob wrote:

"Fred Bartoli"  
<[fred.\\_canxxxel\\_this\\_bartoli@xx](mailto:fred._canxxxel_this_bartoli@xx)>  
wrote in message  
[news:45a6c38e\\$0\\$292\\$426a34cc@xxxxxxxxxxxxxxxxxxxx](mailto:news:45a6c38e$0$292$426a34cc@xxxxxxxxxxxxxxxxxxxx)

Seems simple at first sight.

Apply a sine wave to the DUT through  
 $R=Z_0$   
Multiply voltage by  $1/(j\omega)$   
Take inverse FFT.

The outcome is... uhhh

I must have overlooked something, but  
what?

...going to bed. Maybe I'll do better  
tomorrow.

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Thanks,  
Fred.

What are you trying to do?

Re: TDR, VNA and FFT...

There is something called frequency domain reflectometry but, with that, you need to sweep the DUT through a range of frequencies.

Yeah, but what's wrong with good old TDR? It's simple and it works.

Yeah, simple, but try to obtain precision on a 5km line while still having the communication link working with big data signal on the TDR side, and also decent acquisition time.

Yeah, but you didn't say that in you post :-)

Other "neat" equipment monitoring features provided almost for free by the VNA.

If the channel has to keep running TDR might indeed not be such a cool option. Except if you could use syncs or certain other features in the signal as a "TDR pulse".

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Regards, Joerg

<http://www.analogconsultants.com>

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