Re: RC Transmission Lines (Wafer−Scale)

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- *From*: John Larkin <jjlarkin@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
- *Date*: Mon, 22 Oct 2007 11:44:16 −0700

On Mon, 22 Oct 2007 12:59:19 −0400, Phil Hobbs
<pcdh@xxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote:

> Robert Baer wrote:
>
> > Phil Hobbs wrote:
> >
> > Forgive me for a rather nasty question.
> > What is this phoney push for more junk on a piece of silicon to
> > support what used to be relatively simple applications?
>
> Now, Robert, be nice. ;)
>
> For one thing, IBM (where I work) doesn't even make PCs anymore.
>
> > What was wrong with KISS?
> > In a personal computer, one does not need 2^10 core CPUs, or even dual
> > core; any CPU speed over 1Ghz is wasted, and for 99+% uses Win98Se is
> > more than good enough.
>
> Depends on your problem set. I have a 14−processor Opteron cluster in
> my lab, used only by me, for electromagnetic simulation and device
> design. I put it together for a song (about $12 altogether), but some
> of the problems I use it for can't be solved on a machine with less than
> 30 GB of RAM. Google probably isn't going to try to run on a single
> uniprocessor box of any speed whatsoever.
>
> > Now, if one gets into graphics (read: games, design PCBs or other
> > complex artwork), then more speed becomes useful and Win2K becomes a
> > better choice.
> > Oh, you say, we "need" dual (or quad) core for graphics.
> > What the hell is that large graphics chip on the fancy video card for?
> > Boat anchor?

> In fact, what good was the MMX instruction set for, since the sound card already supported those functions.
> On a cell phone guess what − its purpose is to send and receive calls, period.
> Want to do something else like portable music − players have been around for over 10 years that do that; they just get smaller and store more.
> Etc etc and etc (courtesy of Yul Brynner in the King and I).

> I'm glad you're happy with what you have. I use computers of varying ages too...my office machines are 4 and 10 years old respectively, and they're both dual−processor SMPs, because I push them pretty hard sometimes. I've been writing multithreaded code since OS/2 2.0 came out in 1992. I also like using old apps−−for instance, Wordperfect 5.1+ for DOS *flies* on a modern machine.
>
> On the other hand, there are enough customers for the fastest machines (who know very well what they need) to keep me in beer and skittles, anyway. I like doing things that are useful and fun. Why do you do what you do?
>
> Cheers,
>
> Phil Hobbs

It's ironic that most of the compute power in the world goes to gaming. The most compute−intensive thing we do, in fact the only compute−intensive thing we do, is fpga p+r. Design−rule checking the most complex pc board we make takes about 5 seconds on a standard−performance PC. The rest of what we do is dominated by our DSL rate.

Even Spice usually runs fast. I guess em simulation could be slow, but we rarely do that, thank Goodness.

Intel must be running scared; some day pc's will be good enough and become as exciting as toasters, and $5 Taiwanese cpu's will be powerful enough.

John

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