

Re: Are low/lower cost USB Oscilloscope's any good?

Re: Are low/lower cost USB Oscilloscope's any good?

Source: <http://sci.tech--archive.net/Archive/sci.electronics.design/2006-12/msg02804.html>

- *From:* "Joel Kolstad" <JKolstad71HatesSpam@xxxxxxxx>
 - *Date:* Wed, 13 Dec 2006 11:41:47 -0800
-

"news.valornet.com" <nospam38925@xxxxxxxx> wrote in message
[news:8ed43\\$45805409\\$d861a4c3\\$27629@xxxxxxxxxxxxxx](mailto:news:8ed43$45805409$d861a4c3$27629@xxxxxxxxxxxxxx)

I just don't know if I could part with the money for a portable scope like a fluke 123 however just for playing around.

I wouldn't. You're much better off getting something cheap, playing with it for awhile, and then -- if you're motivated to go further -- getting the high-end Fluke stuff.

1. Do most scopes have decent voltage input on them? For example, can you hook most of them up to line power (120vac or 240vac)?

No! It depends a lot on the scope, of course, but most don't want to see more than "some tens of volts" directly.

You can, of course, easily build yourself "high voltage" probe that are just resistive dividers.

2. I also see a bunch of references to X10 probes. Are these used to reduce the voltage to something a scope can use, for example 240VAC --> 24VAC ?

x10 probes are actually used more to not load down the circuit being probe than to bring 240V-->24V. This is done because heavy loading kills a circuit's frequency response -- the idea probe would have *no* influence on what was being measured, but a good approximation of this becomes difficult to do (especially *inexpensively*) when you start getting into the hundred MHz and up ballpark.

3. Do you have any recommendations for a scope that works on a notebook that is relatively low cost that has decent features (keep in mind I have no

Re: Are low/lower cost USB Oscilloscope's any good?

Re: Are low/lower cost USB Oscilloscope's any good?

idea what features you would want in a scope).

I've been impressed with these guys: <http://www.cleverscope.com/> — they seem to have a solid understanding of what terms like "noise" and "jitter" mean, unlike many of the cheap scopes out there.

These guys: <http://www.bitscope.com/> ...are popular (they're one of the original players), but their performance seems a little lacking these days. In their older models, you couldn't sample both channels simultaneously (well, "chopped") without decimating the sampling rather either... uggh!

I would even consider some of these scopes that are free based ones that work with a sound card, but my question is, what type of voltage input can you get with a microphone jack???

I'd guess something under a volt.

—Joel

.