Subject: New Way To Destroy A PC DSO
Posted by gofar99 on Sun, 02 Jun 2013 02:22:34 GMT
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Hi Everyone &^%$##@!. Last night I found a new way to fry a PC based digital storage scope. This BTW is my second one. Not all DSOs have their inputs protected from voltage overload. In this case the Velleman 1000 didn't. I really like the software it uses and they way it does measurements. Unfortunately the voltage input is limited to 30 volts (300 with the 10X probe). The first one died about two years ago on an AC mains ground fault. I sent it to the company to see if it could be serviced....they said I fried nearly everything and it would be far cheaper to get a new one. $%#*&^%.... OK about $350 down the tubes. Last night I was doing some measurements on a phono preamp for noise levels. When the stuff I am testing for is at -85 to -90 dbv the scope needs to be on the lowest range (5mv/div). A small blob of solder that some how managed to remain in the case shifted. It went between the B+ and the tube side of the output coupling capacitor (a hefty 1.0uf poly). The spike into the cap was probably about 200 volts. Bingo out goes the DSO. Now I'm trying to figure out how to replace it and at the same time protect the new one without compromising the precision of the measurements.

Subject: Re: New Way To Destroy A PC DSO
Posted by Kingfish on Wed, 05 Jun 2013 10:58:48 GMT
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Sounds like a very fine line you're walking. Maybe you need to "settle" for something that has voltage protection. Sorry for your loss by the way, but we do learn from our mistakes.

Subject: Re: New Way To Destroy A PC DSO
Posted by Wayne Parham on Sat, 08 Jun 2013 14:36:06 GMT
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That totally sucks. I feel your pain on that one. Can't just clamp the inputs with SCDs or something, 'cause that would affect the measurements.

What have you decided to do?

Subject: Re: New Way To Destroy A PC DSO
Posted by gofar99 on Sat, 08 Jun 2013 15:48:53 GMT
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Hi Wayne, I got the cheaper version of it that comes with a built in signal generator. Less than half the price at about $155US. The differences in the scope sections don't matter to audio work. I don't need 60MHZ response 12MHZ is just fine. But... it can do direct Bode plots. A really cool

feature. So while the new one is just as vulnerable as the old one, it is at least cheaper to replace.

Subject: Re: New Way To Destroy A PC DSO
Posted by Wayne Parham on Sun, 09 Jun 2013 15:01:30 GMT
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Good plan. Here's hoping let that probe doesn't slip!
