

Re: Multilayer board, track tracing?

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*Source:* <http://sci.tech--archive.net/Archive/sci.electronics.repair/2009-05/msg00609.html>

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- *From:* "JB" <nospam@xxxxxxxxxxxxxx>
  - *Date:* Wed, 20 May 2009 14:22:43 GMT
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"Arfa Daily" <arfa.daily@xxxxxxxxxxxxxx> wrote in message  
[news:PXOO1.66897\\$M64.56522@xxxxxxxxxxxxxx](news:PXOO1.66897$M64.56522@xxxxxxxxxxxxxx)

"David Nebenzahl" <nobody@xxxxxxxxxxxxxx> wrote in message  
[news:4a130368\\$0\\$2712\\$822641b3@xxxxxxxxxxxxxx](news:4a130368$0$2712$822641b3@xxxxxxxxxxxxxx)

On 5/19/2009 7:42 AM Gareth Magennis spake thus:

"Arfa Daily" <arfa.daily@xxxxxxxxxxxxxx> wrote in message  
[news:gQtO1.84400\\$mS6.37204@xxxxxxxxxxxxxx](news:gQtO1.84400$mS6.37204@xxxxxxxxxxxxxx)

"N\_Cook" <diverse@xxxxxxxxxx> wrote in  
message  
[news:gutmcd\\$do8\\$1@xxxxxxxxxxxxxx](news:gutmcd$do8$1@xxxxxxxxxxxxxx)

Any tips for single ended  
signal injection and tracing  
for high  
resolution tracing ,  
floppy/HD head as  
searchcoil ?

I would have thought that any tracks which  
passed internally between  
power and ground planes, would have  
struggled to radiate  
enough signal to be picked up in the way  
that you are envisioning.  
Also, where there are fine-pitch 'bunches' of  
tracks which run  
parallel to one another for any distance, I  
would think that  
crosstalk might become a problem to this  
technique. If such a board

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has any (internal) tracking problems, I don't think that you are going to do a lot with it anyway. Even if it is just generally faulty in some way, if the board is complex enough to require multi-layering, I think you are going to be pissing in the wind attempting a (commercially viable) repair without the benefit of at least schematics  
...

I would second that. I doubt the time and effort spent in attemptng this is time and effort well spent. You'd be better off going for a nice walk in the countryside instead, after telling your customer this is not a viable repair. Which you or he wll end up doing anyway.

I third that. Much as I commend the spirit of trying to fix everything yourself that is possible, some things just aren't made to be fixed. Multilayer circuit boards seem to be one of those things.

Yep. Just yesterday I rejected a big ol' Pioneer amp with every output transistor short on both channels, and most of the emitter Rs open. The mackled-up box that it came in from the customer, suggested that they

might

have obtained it from uPay or some such. With a sigh, I put its covers

back

on, and explained to the shop which took it in, that it was going to be

more

trouble than it was worth. They told me that they 'knew' this was going to be the case, but took it in anyway ...

I then went out for that walk in the country that Gareth suggested ...

A few years back, I would have fixed it come what may. Now, it seems that

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my

time is more importantly used on jobs that actually make me some money.

Arfa

You have my sympathies. After replacing \$100 worth of high power transistors or hybrids, it doesn't leave much for labor. You would be better off fixing cars or washing machines.

It has been my experience with consumer equipment, that if you can fix it, the customer will either be poor and can't afford it, or will be genuinely disappointed because they really wanted the newest, latest gimmick. If you fix it, they will never return to claim it. Or in one case, brought the whole family over and while I was distracted, one snuck out with TV and paperwork and all bolted on queue without paying.

Always leave the unit disassembled or at least with the back off with wiring and circuits exposed and settle the invoice before putting it back together. Thieves don't want to get electrocuted.

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