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Subject: Not connected pads

Posted by [Clemens Adler](#) on Fri, 30 Jul 2004 06:37:12 GMT

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Hello everybody,

at the last Status meeting in Heidelberg, I reported, that David found, some pads on a padplane that were not connected to the signal cable. Unfortunately this cannot be corrected after the padplane is glued to the panel, since the connection of cable to padplane is not accessible anymore.

Anton recommended to short the unconnected pads to the next neighbor.

We checked another padplane which had 1 unconnected pad. On this one I shorted the pad to the next neighbor with silver epoxy. This seems to work reasonably well, filling the gap between the 2 pads plus some overlap. This can be seen in:

[http://www.physi.uni-heidelberg.de/~adler/TRD/pics/2004\\_07\\_29/IMG\\_0470.JPG](http://www.physi.uni-heidelberg.de/~adler/TRD/pics/2004_07_29/IMG_0470.JPG)

Soldering does definitely not work without creating a big droplet of solder on the padplane.

There was some discussion about longterm stability of silver epoxy concerning the electronics grounding, but I guess the resistance here is not that critical. But if someone has a better suggestion on how to connect 2 pads, please speak up.

cheers,  
Clemens

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Subject: Re: Not connected pads

Posted by [Harald Appelshaeuser](#) on Fri, 30 Jul 2004 10:36:51 GMT

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Dear Clemens,

I don't see another easy way to do this.

However, I wonder whether it would be better to make a connection to the next neighbor in the next row. It's probably a question of track density. How can we find this out?

Harry

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Subject: Re: Not connected pads

Posted by [Clemens Adler](#) on Thu, 19 Aug 2004 15:20:26 GMT

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Hello,

an update on the issue of not connected pads:

We tested 8 padplane panels,

-4 of them are completely OK.

-2 have one unconnected pad.

-1 has 2 unconnected pads.

-1 has 6 unconnected pads.

in the case of 1 or 2 unconnected pads, I connected them to their outside neighbor, so they will not float.

In case of the 6 unconnected pads, I'm a bit unsure what to do. They are more or less in the middle of the chamber and they are in one block of 4 unconnected pads then 1 connected one, then 2 more unconnected pads. I.e. shorting them all, would mean a rather big block of dead channels right in the middle. The question is, whether we can still use that panel, or not.

Another issue is, that it is still not clear what the cause of the missing connection is: either bad soldering joints, that are not detected when the padplanes are tested, or broken cable traces (what could happen during transport, uncaredful handling, or when gluing the padplane to the panel).

Therefore it might be interesting to cut open a panel to see what caused the problem (on the other hand, both things could happen in principle, and one would need some statistics to really learn something?!?)...

so anyway, if anybody has suggestions, ideas...

cheers,  
Clemens