

Front View - H8 Test Box

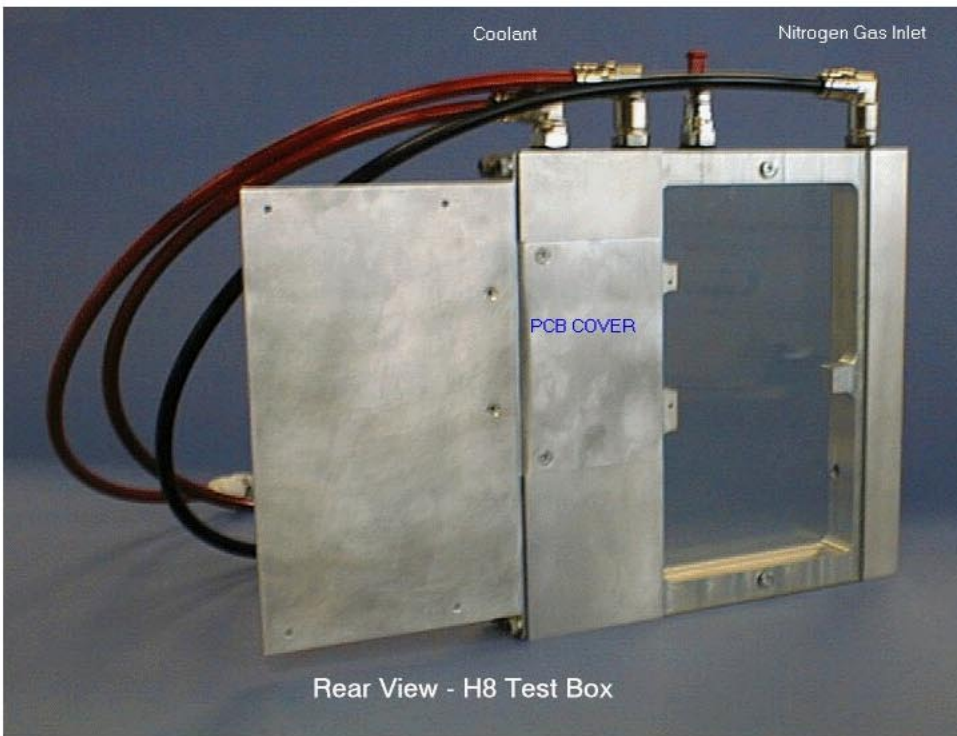


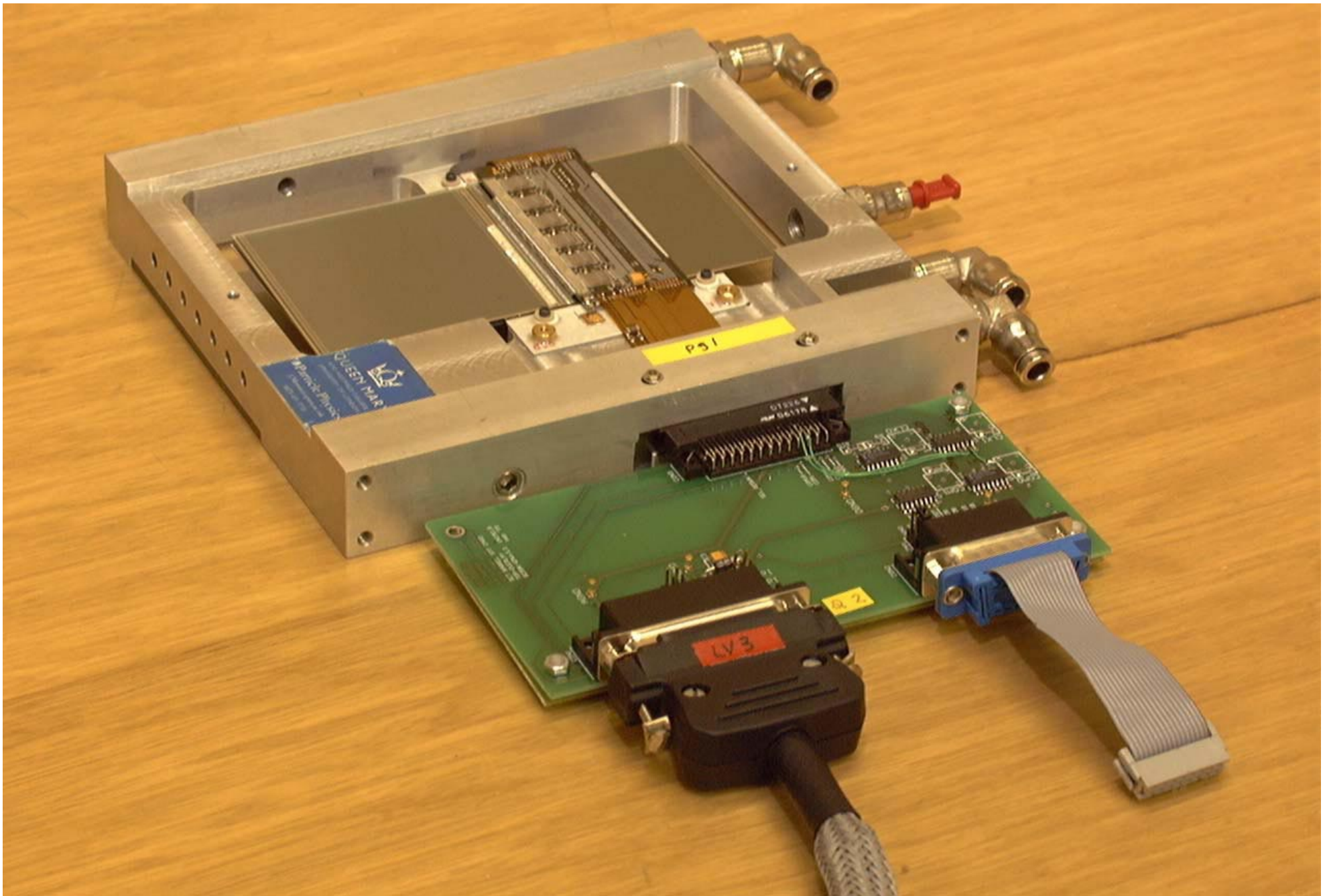
Coolant

Nitrogen Gas Inlet

PCB COVER

Rear View - H8 Test Box





From moorhead@liszt.ph.unimelb.edu.au Thu Oct 7 15:28:20 1999
Date: Thu, 7 Oct 1999 16:10:32 +1000 (EST)
From: "Gareth F. Moorhead" <moorhead@liszt.ph.unimelb.edu.au>
To: Yoshinobu UNNO <unno@post.kek.jp>
Cc: Gareth Moorhead <gfmoor@axnd02.cern.ch>
Subject: Re: Interconnection in the QMW testbox

> By the way, do you know how the interconnection between
> the module pigtail connector to the (mating) SC99-QMW connector is made in
> the QMW testbox?

This was long a point of contention regarding the design philosophy of the QMW box. Tony wanted the electronics outside, and wanted very good thermal contact between the module and the box. This means there is an extra adaptor inside the box, just a small PCB that connects the Samtec header on the hybrid to the KEL connector on the side of the box. The original non-diagnostic version of this adaptor (by Ole at Oslo) can be seen in my web site:

<http://www.ph.unimelb.edu.au/epp/projects/qmw/adap36>

Hubert had some diagnostic versions of these made just before the recent testbeam. They worked very well, at least we had no trouble putting everything together at CERN and seeing beam within a few hours !

A general comment is that we (mainly Peter and I) have gone to quite considerable trouble to put together all the bits needed for sensible multiple module testing... there are several different types of diagnostic item also available.

Regarding the KEL connector on the QMW box: this is as a result of a recommendation by Peter and I. The connector is a high-density one, but can connect to two tiers of low density cable. It is CERN stores, so easy to get, and is compact. We chose a pinout which is compatible both with diagnostic and non-diagnostic hybrids, so they can be used with identical support card electronics.

Regards, Gareth

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From moorhead@liszt.ph.unimelb.edu.au Wed Oct 27 19:46:47 1999
Date: Thu, 21 Oct 1999 10:42:03 +1000 (EST)
From: "Gareth F. Moorhead" <moorhead@liszt.ph.unimelb.edu.au>
To: Yoshinobu UNNO <unno@post.kek.jp>
Cc: Gareth Moorhead <gfmoor@axnd02.cern.ch>
Subject: Re: KEL50 50way connector

Hi Nobu,

You can see drawings of the non-diagnostic (36-way hybrid header) QMW patch card on my web site at:

www.ph.unimelb.edu.au/epp/projects/qmw/adap36

(this is a copy from Ole at Oslo)

Hubert has recently made some 50-way diagnostic versions which we used at the testbeam in September. These use the same support-cards.

The patch card should have the MALE connectors, right-angle PCB mount,
CERN SCEM 09.55.21.350.0

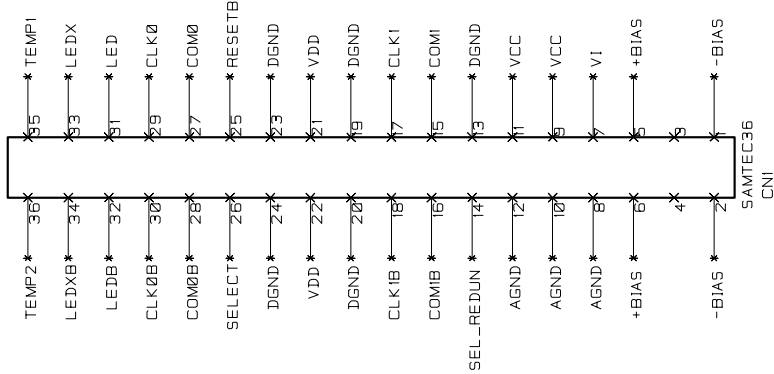
The support card, sc99-qmw, has the female mating connectors,
CERN SCEM 09.55.21.550.4

A word of warning: Peter Phillips is actively studying these systems now, with a view to understanding some of the noise and ground issues. It may be we need to do a new version of the patch card to provide thicker ground planes; I could do this in Melbourne quite quickly if needed (not by Monday !) so it might be wise only to populate the minimum number of patch cards to start with. I will forward his most recent mail if you're not on its distribution list.

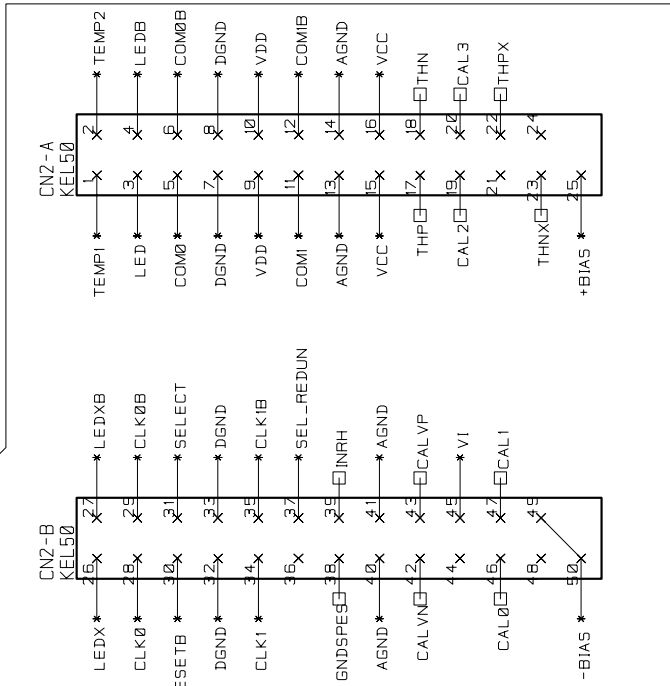
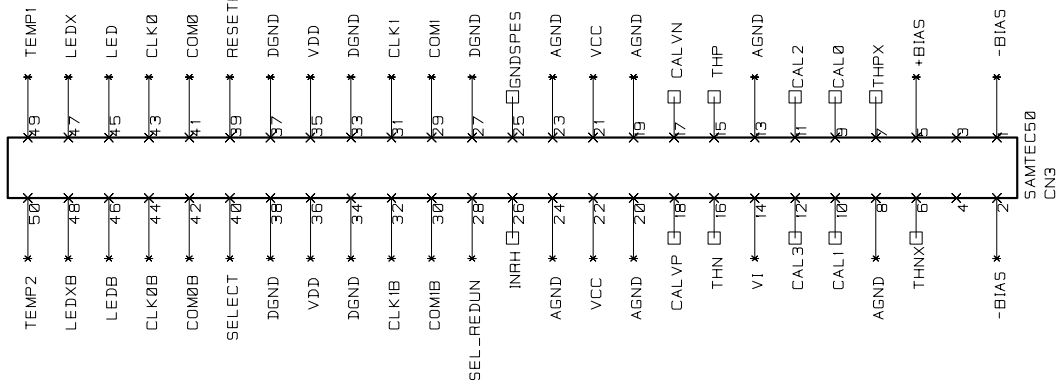
Gareth

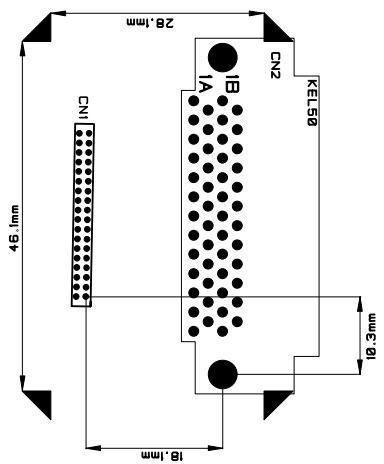
>
> Dear Gareth,
>
> We are getting the PCB adaptor cards for the H8 testboxes. We need to
> collect the connectors to be put on the PCB cards.

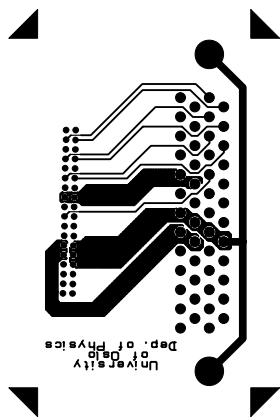
FOR 36 pin hybrid

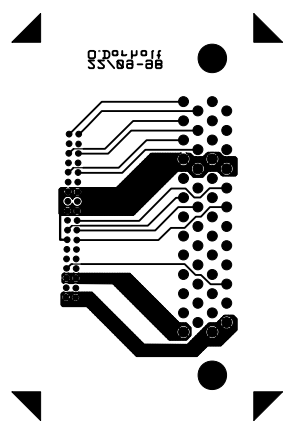


FOR 50 pin hybrid









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