



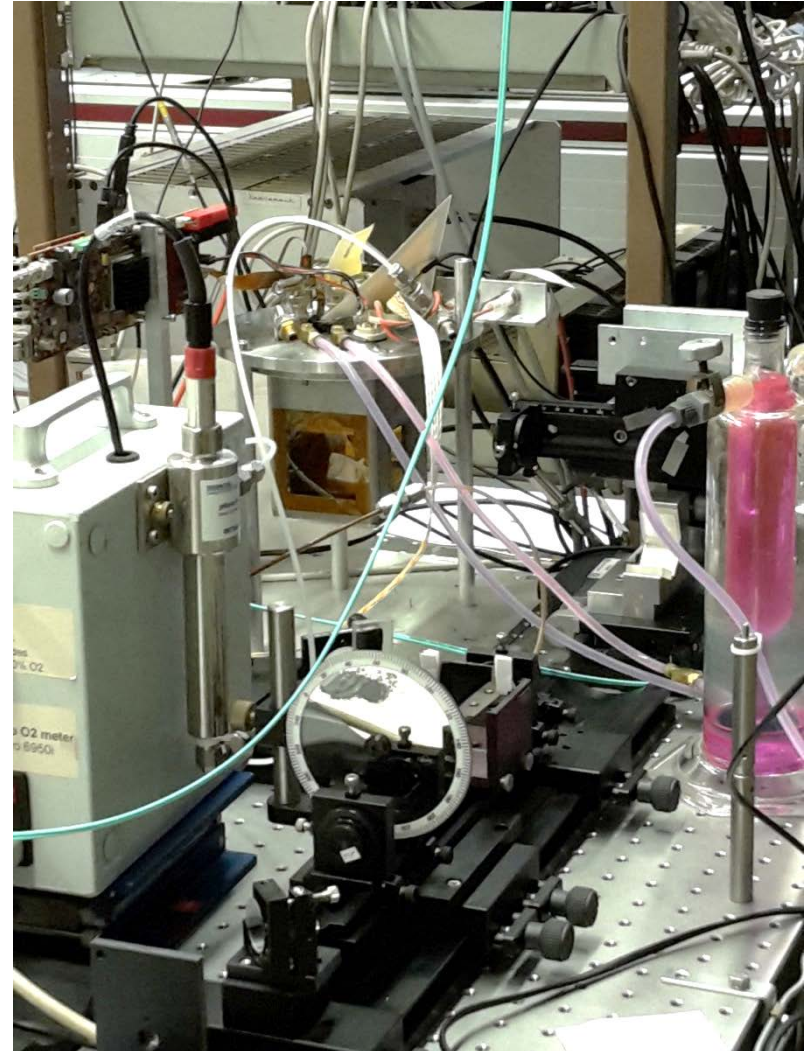
QUAD status
New testbox

Fred Hartjes
NIKHEF

Nikhef/Bonn LepCol meeting
July 16, 2018

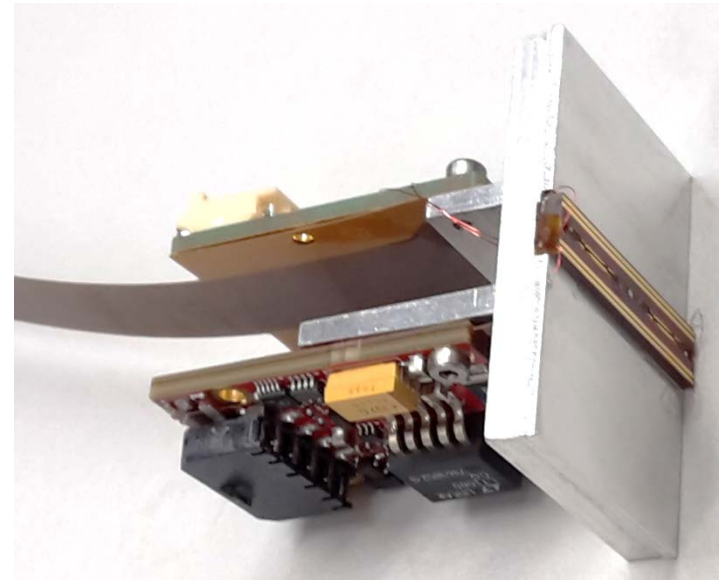
Laser setup single QUAD

- Completely operational
 - Putty communication OK
 - Liquid cooling repaired => OK
- Starting taking data (Kees)



New QUAD production

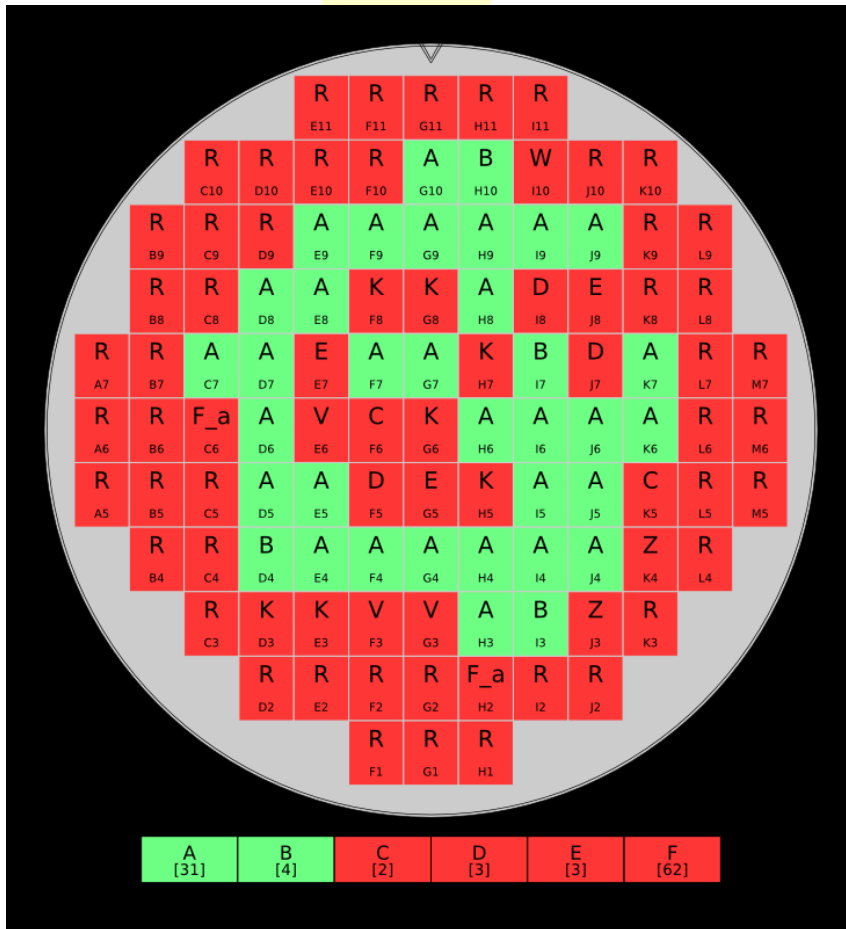
- One wirebond PCBs lost
 - Traces scraped off when moving the board into the COCA
 - Clear how to avoid this in future
- QUAD 10 mechanically mounted
 - Using reduced stump
 - Including HV lines
 - Still to be tested for gas tightness and O₂ diffusion
- Delay due to my holidays and moving to another clean-room (H070)
 - Next Wednesday
- Waiting for chips



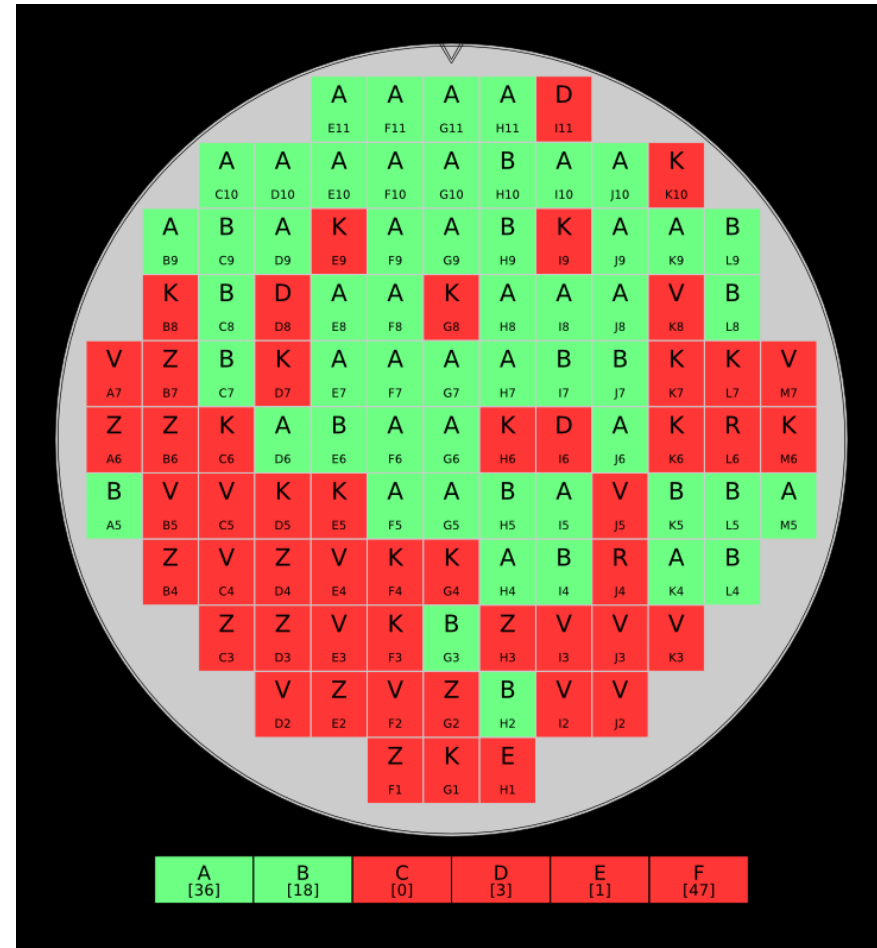
Two low yield wafers

- Both processed by Yevgen

W23



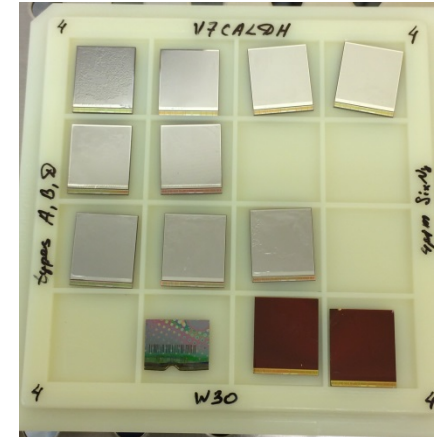
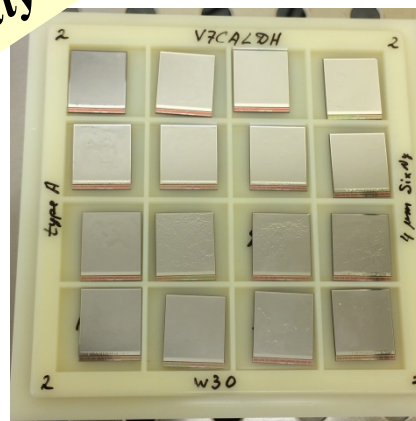
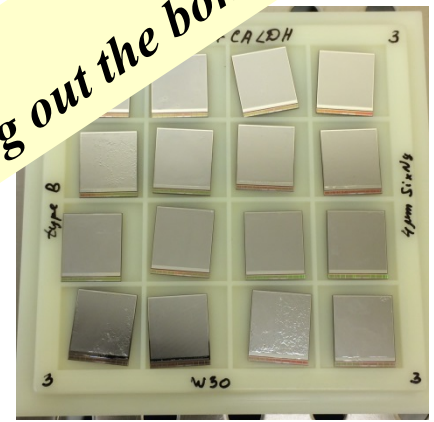
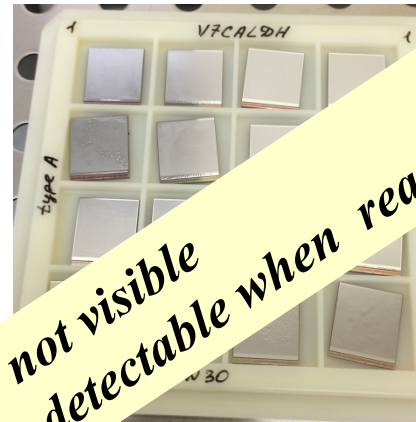
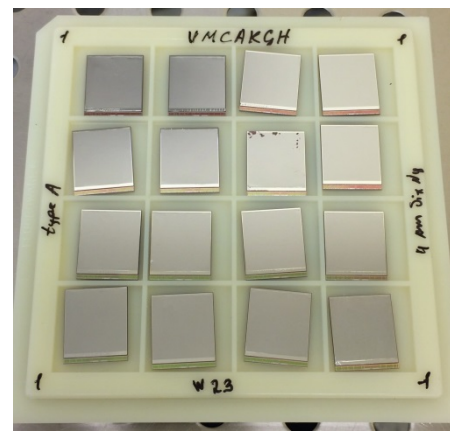
W30



Fred Hartjes

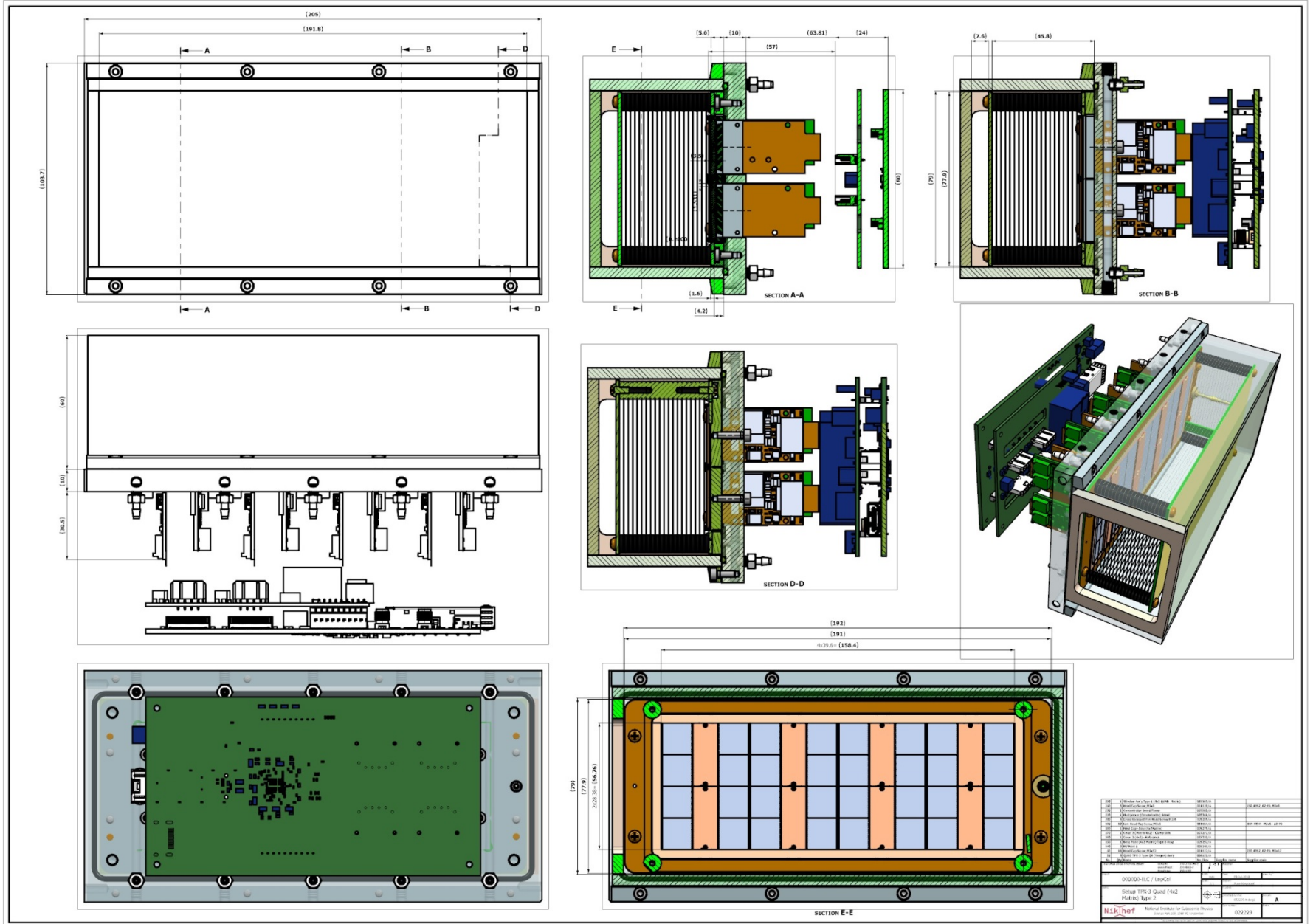
InGrids on TPX3

- Yevgen's latest production has been very successful
- Wafer 23 (VMCAKQH)
 - 31 class A
 - 4 class B
- Wafer 30 (V7CALDH)
 - 36 class A
 - 18 class B
- 89 chips in total
- Yevgen's yield
 - 74 good (class A/B)
 - 13 limited performance
 - 1 bad
- 88 chips in total



Chip ID not visible
• **Only detectable when reading out the bonded chips**

Design 2 x 4 testbox ready



Rev	Description	Date	By	Appr
01	Initial Release	2010-01-15	J. Doe	M. Smith
02	Change PCB Layout	2010-02-01	J. Doe	M. Smith
03	Change Component Values	2010-02-15	J. Doe	M. Smith
04	Change PCB Layout	2010-03-01	J. Doe	M. Smith
05	Change Component Values	2010-03-15	J. Doe	M. Smith
06	Change PCB Layout	2010-04-01	J. Doe	M. Smith
07	Change Component Values	2010-04-15	J. Doe	M. Smith
08	Change PCB Layout	2010-05-01	J. Doe	M. Smith
09	Change Component Values	2010-05-15	J. Doe	M. Smith
10	Change PCB Layout	2010-06-01	J. Doe	M. Smith
11	Change Component Values	2010-06-15	J. Doe	M. Smith
12	Change PCB Layout	2010-07-01	J. Doe	M. Smith
13	Change Component Values	2010-07-15	J. Doe	M. Smith
14	Change PCB Layout	2010-08-01	J. Doe	M. Smith
15	Change Component Values	2010-08-15	J. Doe	M. Smith
16	Change PCB Layout	2010-09-01	J. Doe	M. Smith
17	Change Component Values	2010-09-15	J. Doe	M. Smith
18	Change PCB Layout	2010-10-01	J. Doe	M. Smith
19	Change Component Values	2010-10-15	J. Doe	M. Smith
20	Change PCB Layout	2010-11-01	J. Doe	M. Smith
21	Change Component Values	2010-11-15	J. Doe	M. Smith
22	Change PCB Layout	2010-12-01	J. Doe	M. Smith
23	Change Component Values	2010-12-15	J. Doe	M. Smith
24	Change PCB Layout	2011-01-01	J. Doe	M. Smith
25	Change Component Values	2011-01-15	J. Doe	M. Smith
26	Change PCB Layout	2011-02-01	J. Doe	M. Smith
27	Change Component Values	2011-02-15	J. Doe	M. Smith
28	Change PCB Layout	2011-03-01	J. Doe	M. Smith
29	Change Component Values	2011-03-15	J. Doe	M. Smith
30	Change PCB Layout	2011-04-01	J. Doe	M. Smith
31	Change Component Values	2011-04-15	J. Doe	M. Smith
32	Change PCB Layout	2011-05-01	J. Doe	M. Smith
33	Change Component Values	2011-05-15	J. Doe	M. Smith
34	Change PCB Layout	2011-06-01	J. Doe	M. Smith
35	Change Component Values	2011-06-15	J. Doe	M. Smith
36	Change PCB Layout	2011-07-01	J. Doe	M. Smith
37	Change Component Values	2011-07-15	J. Doe	M. Smith
38	Change PCB Layout	2011-08-01	J. Doe	M. Smith
39	Change Component Values	2011-08-15	J. Doe	M. Smith
40	Change PCB Layout	2011-09-01	J. Doe	M. Smith
41	Change Component Values	2011-09-15	J. Doe	M. Smith
42	Change PCB Layout	2011-10-01	J. Doe	M. Smith
43	Change Component Values	2011-10-15	J. Doe	M. Smith
44	Change PCB Layout	2011-11-01	J. Doe	M. Smith
45	Change Component Values	2011-11-15	J. Doe	M. Smith
46	Change PCB Layout	2011-12-01	J. Doe	M. Smith
47	Change Component Values	2011-12-15	J. Doe	M. Smith
48	Change PCB Layout	2012-01-01	J. Doe	M. Smith
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50	Change PCB Layout	2012-02-01	J. Doe	M. Smith
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88	Change PCB Layout	2013-09-01	J. Doe	M. Smith
89	Change Component Values	2013-09-15	J. Doe	M. Smith
90	Change PCB Layout	2013-10-01	J. Doe	M. Smith
91	Change Component Values	2013-10-15	J. Doe	M. Smith
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93	Change Component Values	2013-11-15	J. Doe	M. Smith
94	Change PCB Layout	2013-12-01	J. Doe	M. Smith
95	Change Component Values	2013-12-15	J. Doe	M. Smith
96	Change PCB Layout	2014-01-01	J. Doe	M. Smith
97	Change Component Values	2014-01-15	J. Doe	M. Smith
98	Change PCB Layout	2014-02-01	J. Doe	M. Smith
99	Change Component Values	2014-02-15	J. Doe	M. Smith
100	Change PCB Layout	2014-03-01	J. Doe	M. Smith

Tooling

- Leak/diffusion test box for QUADs
 - To be used just before putting chips on
 - To be applied to each QUAD during production
 - Just finished
- Dummy QUADs
 - Aluminium plate covered by PCB
 - To be used if we have not sufficient QUADs to populate a full test box

