Parylene coating at LPNHE

Masking and parylene coating of digital module 88 at APS

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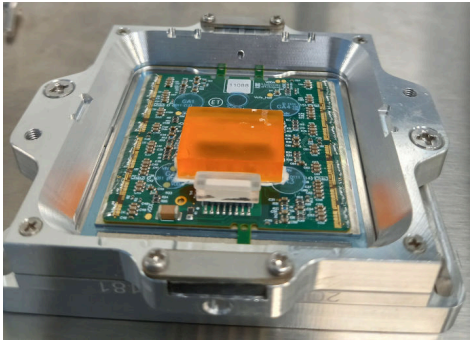
LPNHE ATLAS ITk Pix 21/11/2023

Masking of digital 88

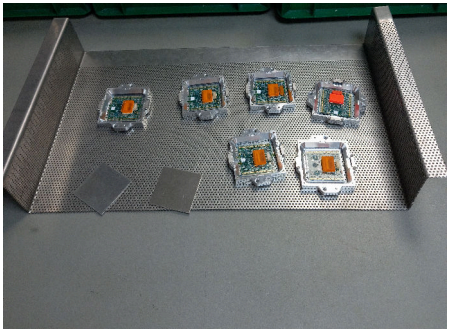
Masking was done at ICJLab, with the help of tools from IRFU that were made at CEA.

- A wirebond protection that enables for the dicing tape deposition tool to pass
- A protection for power connector that doesn't stick to the flex
- Dicing tape cutted at ICJLab with the Silhoutte Cameo machine



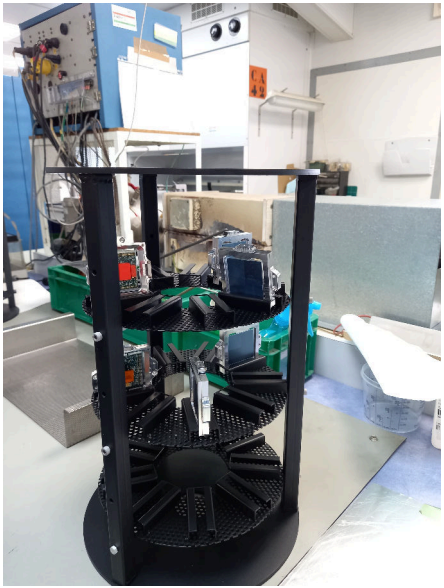
Silane application

Instructions shared on how to handle safely the module, asked not to use alcohol on module for cleaning, but can't prevent silane bath (less bad for wb probably).
After silane bath, the modules are dried 1 h in an oven at 50 C.



Parylene coating

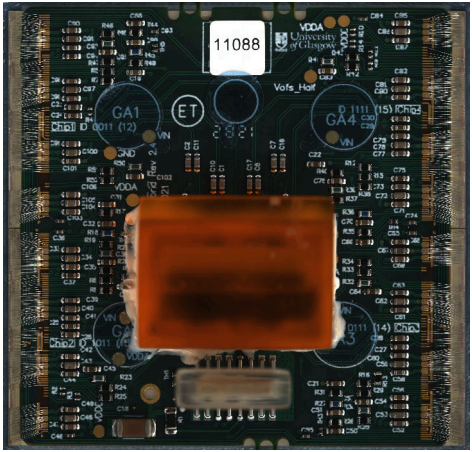
Modules are placed in a carroussel and loaded in the parylene chamber.

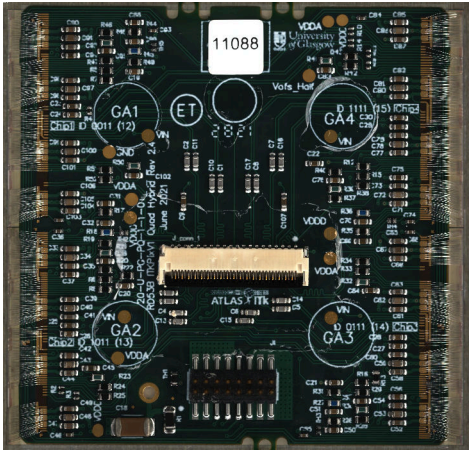


Parylene deposition at APS

Parylene coating

Visual inspection is performed before and after unmasking the module, parylene border is clearly visible in second picture.





After picture is taken, connectivity test is run, and works !
Masking and parylene coating are successfull, qualification document is arriving.