

ANR SPLAM: nouveau ASU et tests de protections

Réunion technique

LAPP

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Outline

Resistive ASUs

Protection ASIC

Conclusion

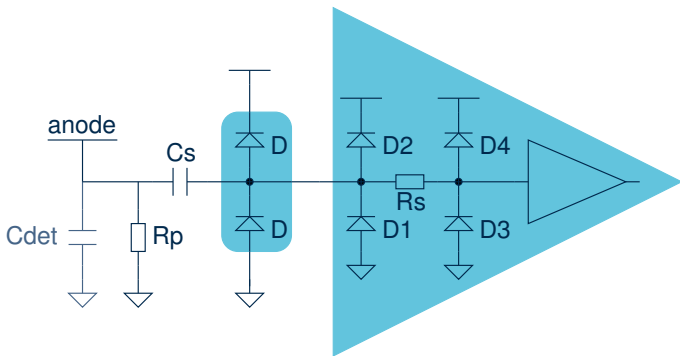
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Rappel: protection actuelle

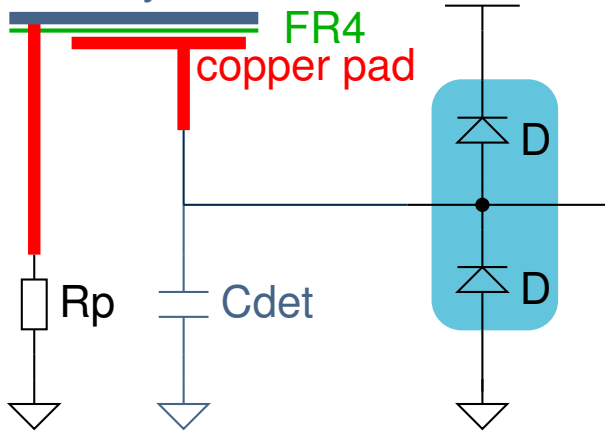


$R_p=1\text{ M}\Omega$, $R_s=10\text{ }\Omega$, $C_s=470\text{ pF}$, D are ON-Semiconductor NUP 4114, D_x are integrated fast diodes.

Proposition 1

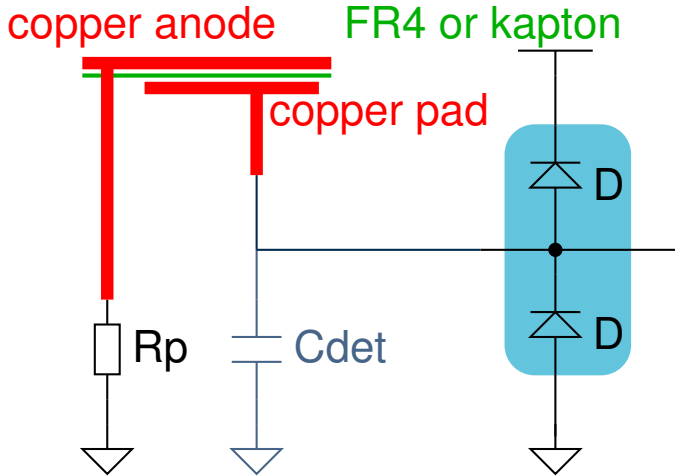
Add a protective layer on the pad à la MAMMA.

resistive layer

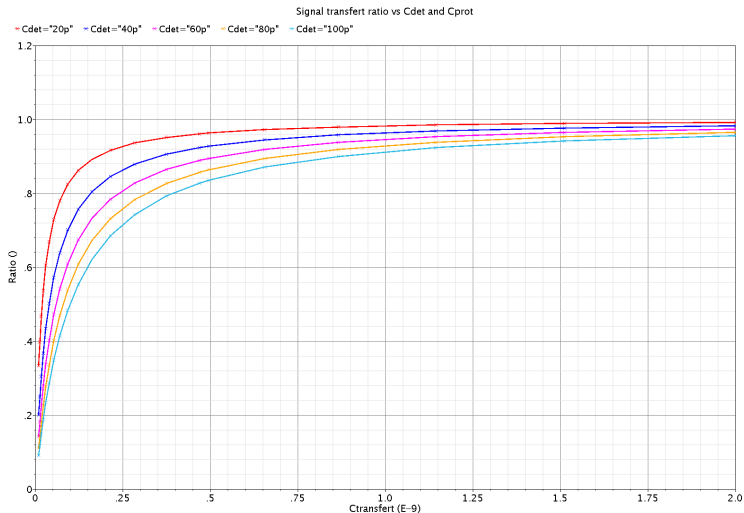


Proposition 2

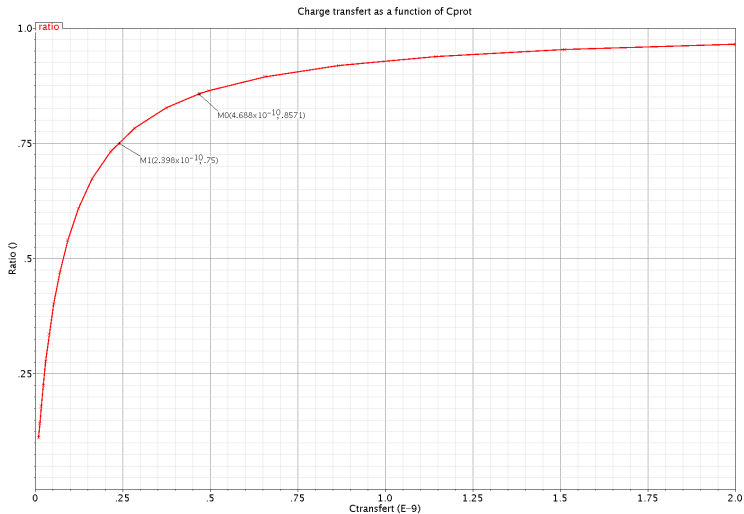
Perform a pure capacitive readout, à la RPC. *cf.* R&D with BC16T.



Charge vs Cs vs Cdet



Charge vs Cs



Outline

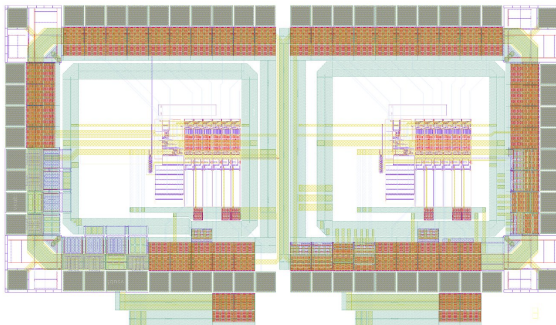
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ASIC from LAPP

Funded by in2p3. Two kinds of alim pads, 6 kinds of i/o pads for each. Each i/o connected to a MICROROC PA.



Alex is currently designing a testboard, to be used with spark generator.

Several hundred of diodes, on two type of silicon (epi and non-epi), seems very similar to Diracs diodes. . . Must be packaged, will be compatible with Alex board.

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Conclusions

- Build a slab with resitive 1 and/or 2 ?
- I'd like to remove nup4140 from 1 ASIC of new square meter ;
- Electronic protections tests on-going...