



Next step for Sensors

- Agree on sensor specifications
- Design sensor + test structures + test programme
- Order (together with other projects?)

parameter	value	comments
dimensions	$x \cdot x \text{ mm}^2$	mounting, test experiments
thickness	500-700 μm	U_{dep} , plasma effects, shielding, efficiency, science
material/diode type	p^+ on n	h-collection, plasma effects, pulse shape
doping	3-5 $\text{k}\Omega \cdot \text{cm}$	U_{dep} , plasma effects
doping uniformity		charge collection distortions
pixel dimensions	200·200 μm	electronics, science
U_{max}	1000 V	mounting, pulse shape, dead space at edges
pad layout		bump bonding, capacitance
biasing scheme		detector tests
coupling type	DC	bias current correction
inter-pixel capacitance		noise, cross-talk, avalanche breakdown, $U_{\text{operation}}$
total dark current	2 μA	detector technology ok
max. dark current/pixel	50 nA	noise, uniformity
passivation	SiO_2 , (Si_3N_4)	irradiation, environmental effects
dead region at edges		dead space for science