

PIPS specification sheet

Series CD

Model:

CD-EPILo-700EB/C

(Ion / electron SSD)

Total detector area:	138	mm ²
Electron pixel:	62	mm ²
Ion pixel:	76	mm ²
Chip dimensions (trapezoid, base x height):	18.63 x 12.1	mm ²
Mount:	Epoxy board	Supplied by customer
Epoxy Board dimensions:	See 7464-1328	mm
Chip thickness:	700	µm
Depletion depth (min./max.):	685 / 715	µm
Contact to junction	redundant wire bonding	
Contact to ohmic side:	redundant wire bonding	
Junction thickness ion pixel:	< 50	nm
Junction thickness electron pixel:	1800 to 2200 +/-10%	nm (variation per wafer) variation per detector
Polyimide Mask thickness:	10 +/- 1	µm
Ohmic window thickness:	< 5	µm
Large pixel capacitance (typ.):	13	pF

Estimated detector performance:

	<i>min.</i>	<i>max.</i>	
Operating voltage:	100	250	Volts
Total current at 20°C:		70	nA
Electronic noise ion pixel:		9	keV
Alpha resolution ion pixel:		16*	keV

- Alpha resolution measured on 50nm window.
- Standard tests are performed following IEEE Standard Test Procedures for Semiconductor Charged Particle Detectors No IEEE Std 300-1988.
- The electronic noise is approximated with a pulser resolution.