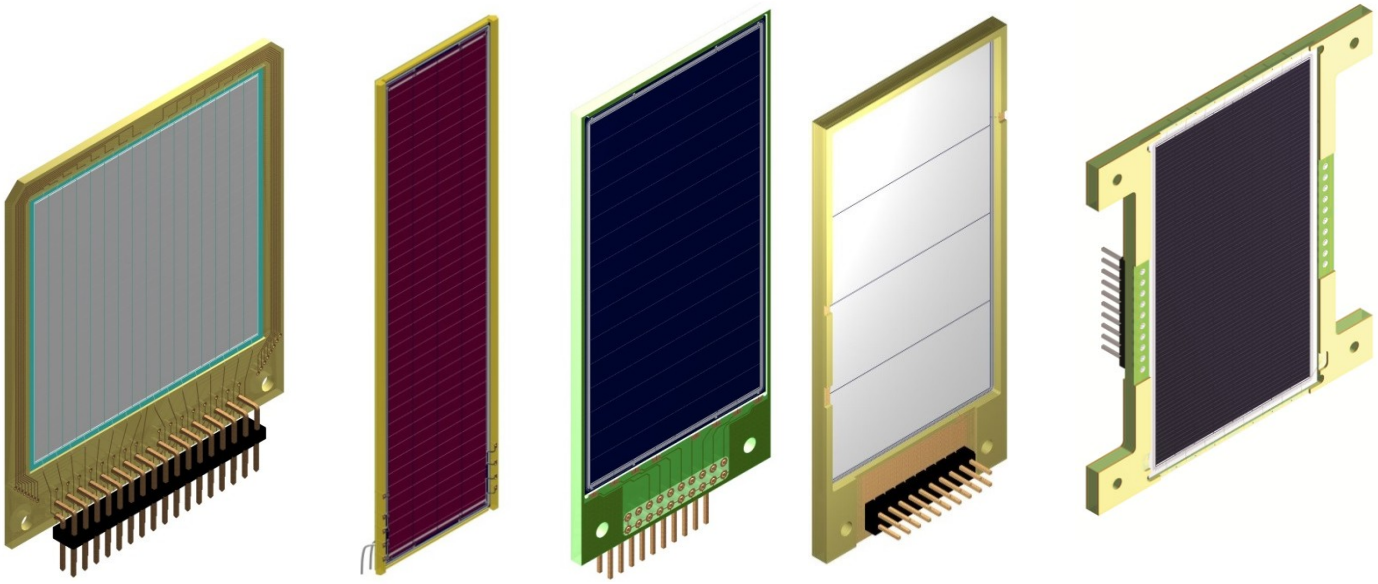
SPECIALIST DETECTORS FOR NUCLEAR PHYSICS

SILICON DETECTOR TYPE: POSITION SENSITIVE DETECTOR (PSD)

DESIGN: Silicon planar ion implanted structure p on n silicon totally depleted with resistive p junction layer featuring high uniformity and equipotential channel along the linear axis between the two anodes of this common cathode device on all microstrip channels.



X1 Assembly **X2 Assembly** **X3 Assembly** **Super X3 with standard pads on rear.** **X4 Assembly**

DESIGN	**X1(SS)**	**X2(SS)**	**X3(SS) / Super X3(DS)**	**X4(SS)**
TECHOLOGY	4	6	4	4
JUNCTION WINDOW	PSD E	PSD E	PSD E	PSD E
OHMIC WINDOW	2M	2M	2M	2M
Nº CHANNELS	16	4	4/ 8	8
POSITION SENSITIVE	1 axis on each of the 16 channels	1 axis on each of the 4 channels	1 axis on each of the 4 channels	1 axis on each of the 8 channels
POSITION RESOLUTION	200 µm	5650 µm	10000 µm	5100 µm
STRIP AREA		5.55 x 94.80 mm^2	10.0 x 75.0 mm^2	5.10 x 75.00 mm^2
ACTIVE AREA	50 x 50 mm^2	22.2 x 94.8 mm^2	40.3 x 75.0 mm^2	41.5 x 75.00 mm^2
CHIP DIMENSION	52.1 x 52.1 mm^2	24.6 x 96.8 mm^2	43.3 x 78.0 mm^2	45.6 x 79.00 mm^2
FULL DEPLETION (FD)	10 - 250 V Subject to thickness	10 - 250 V Subject to thickness	10 - 250 V Subject to thickness	10 - 250 V Subject to thickness
LEAKAGE CURRENT (FD)	50 – 250 nA Subject to thickness	50 – 250 nA Subject to thickness	50 – 250 nA Subject to thickness	50 – 250 nA Subject to thickness
TOTAL CURRENT (FD)	1 – 3 µA	1–3 µA	1 – 3 µA	1 – 3 µA
CAPACITANCE (FD)	40 – 20 pF/cm Subject to selected thickness	600 pF/strip	40 – 20 pF/cm Subject to selected thickness	40 – 20 pF/cm Subject to selected thickness
INTER ANODE RESISTANCE	3 – 10 KΩ	4 – 10 KΩ	4 – 10 KΩ	4 – 10 KΩ
ENTRANCE WINDOW	0.2 µm	0.2 µm	0.2 µm	0.2 µm
PACKAGES	PCB with connectors	PCB with connections	PCB with connector	PCB with connector
CONNECTORS	Unshrouded connector	Junkosha Miniature Coaxial cable	Unshrouded connector	Unshrouded connector
MINIMUM ACCEPTANCE LEVEL	100 %	100 %	100 %	100 %

QUALITY ASSURANCE: ISO9001