

## SPECIALIST DETECTORS FOR NUCLEAR PHYSICS

SILICON DETECTOR TYPE:	SINGLE SIDED POSITION SENSITIVE DETECTOR			
TECHNOLOGY:	4 INCH SILICON			
DESIGN:	Ion implanted totally depleted resistive position sensitive detector suitable for Heavy Ion Physics and spectrometer applications. The device complements DESIGN T and DESIGN AA which are being used in both Heavy Ion and Nuclear Structure Physics.			
ACTIVE AREA:	18 cm <sup>2</sup> 180 x 10 mm <sup>2</sup>			
N <sup>o</sup> of CHANNELS:	2			
ELEMENT SIZE:	90 x 10 mm <sup>2</sup>			
ELEMENT SEPARATION:	200 %			
THICKNESS:	100µm	300µm	500µm	1000µm
THICKNESS TOLERANCE:	± 25 µm			
THICKNESS UNIFORMITY:	± 5 µm			
FULL DEPLETION (FD):	20 V	30 V	50 V	150 V
OPERATING VOLTAGE:	FD to FD +50 V			
ELEMENT CAPACITANCE:	500 pF typical	200 pF typical	100 pF typical	50 pF typical
ELEMENT LEAKAGE				
CURRENT:	30 nA typically, 150 nA maximum			
TOTAL LEAKAGE CURRENT:	50 nA typically, 300 nA maximum			
DAISY CHAIN:	Yes			
POSITION RESOLUTION:	0.33% typically, 1 % maximum			
ALPHA RESOLUTION:	20 KeV typically, 60 KeV maximum			
NOISE RESOLUTION:	10 KeV typically, 30 KeV maximum			
INTER ANODE RESISTANCE:	5 K typically, 10 K maximum			
METALLISATION:	3000 Å			
METALLISATION TOLERANCE:	± 1000 Å			
PACKAGE WITH ELECTRONICS:	PCB Transmission			
HOUSING:	Metal 190 x 40 mm <sup>2</sup> case			
OUTPUTS:	Anode 1, Anode 2, Anode 3, Cathode and Case			
CONNECTOR:	SMA, SMB, CONHEX and MICRODOT			
EXPERIMENTS:	Magnetic spectrometer at University of North Carolina			

QUALITY ASSURANCE :ISO9001

