

SPECIALIST DETECTORS FOR NUCLEAR PHYSICS

SILICON DETECTOR TYPE:	DOUBLE SIDED DC DETECTOR	
TECHNOLOGY:	4 INCH SILICON	
DESIGN:	DC detector featuring triple position sensitivity with dual anode with resistor division on junction side and orthogonal strips on the ohmic side with resistor division in readout banks to minimize the number of outputs.	
EXPERIMENT:	Rikko University, Japan	Jaeri, Japan
PART DESIGNATION:	AAA1	AAA2
ACTIVE AREA:	41 cm ² 64 x 64 mm ²	44 cm ² 77 x 57 mm ²
THICKNESS:	300 μm	370 μm
THICKNESS TOLERANCE:	± 15 μm	± 15 μm
THICKNESS UNIFORMITY:	± 5 μm	± 5 μm
FULL DEPLETION (FD):	50 V maximum	50 V maximum
OPERATING VOLTAGE:	30 V	40 V
ELEMENT CAPACITANCE:	130 pF	125 pF
ELEMENT LEAKAGE CURRENT:	200 nA	200 nS
GUARD RING:	Floating	Floating
TOTAL ALPHA RESOLUTION: FWHM	150 KeV max	200 KeV max
INTERNODE RESISTANCE:	1 KΩ minimum	1 KΩ minimum
METALLISATION:	10000 Å	10000 Å
METALLISATION TOLERANCE:	± 1000 Å	± 1000 Å
PACKAGE:	PCB	PCB
CONNECTOR:	Vertical headers	Vertical Headers
DETECTOR PACKAGE ALIGNMENT:	± 100 μm	± 100 μm
N ^o of JUNCTION OUTPUTS:	12	15
N ^o of OHMIC OUTPUTS:	16	8
N ^o of STRIPS PER CHAIN:	8	16
RADIATION HARDNESS/cm ² :	10 Heavy ions, 10 light ions, 10 protons, 10 neutrons	
WIRE BONDING:	Ultrasonic 25 μm	

QUALITY ASSURANCE :ISO9001

