SPECIFICATION:-

Silicon Detector Type 1	Quantity: 01 No.
1. Fully Depleted Passivated Ion implanted Planar silicon detector.	
2. To be used to detect charged particles in junction side.	
3. Detector should have transmission mount with a radial microdot connector.	
4. Actual thickness should be any value in the range (μm) 300 ± 30	
5. Active Area (mm^2): 150 or more	
6. Depletion depth (D) should be in between 300 ± 30 μm as per thickness of the detector.	
7. Energy resolution should be $\leq$ 25 keV (for 5.486 MeV alpha) at 300K	
8. Connector: Microdot	
9. Manufacturer should specify the bias voltage and leakage current. Leakage current should not fluctuate.	
Silicon Detector Type 2	Quantity: 01 No.
1. Fully Depleted Passivated Ion implanted Planar silicon detector.	
2. To be used to detect charged particles in junction side.	
3. Detector should have transmission mount with a radial microdot connector.	
4. Actual thickness should be any value in the range (μm) 300 ± 30	
5. Active Area (mm^2): 300 or more	
6. Depletion depth (D) should be in between 300 ± 30 μm as per thickness of the detector.	
7. Energy resolution should be $\leq$ 25 keV (for 5.486 MeV alpha) at 300K	
8. Connector: Microdot	
9. Manufacturer should specify the bias voltage and leakage current. Leakage current should not fluctuate.	
Connector or cable	Quantity: 02 No.
The vendor must supply either microdot male to BNC male connector OR should provide 93 ohm cable of length 10 cm having microdot male in one side and BNC male port on other side.	
Standard clause:	
1. Material should be supplied by the original manufacturer or their authorized agent. Authorization certificate should be attached with the quotation.	
Acceptance criteria:	
1. The item should be tested by the vendor at their site. At the time of supply, the vendor should attach the test report stating the guaranteed values of energy resolution of each detector.	
2. Purchaser may test all the specifications mentioned above. In case of any deviation, material will be rejected.	
Note:	
All the items should be provided by the same vendor and the evaluation will be done on the overall lowest basis.	