



**Indian Institute of Technology Bombay**  
**Materials Management Division**  
**IIT Powai, Mumbai – 400 076.**

**Technical Specifications for Scanning Kelvin Probe system Qty - 1 No.**

Sl. No.	Specifications	Description	Compliance (Yes/No)
1.	A. Translation Stages for X, Y, Z Axis	a) Linear Stage with Stepper Motor, (Travel range:100mm, Resolution:1μm), for X, Y Axis M-8MT-CXN80100-S2PN-ND-P1 b) Vertical Lift Positioning Table; (Travel range:25mm, Resolution: 0,5μm) for Z Axis 8MVT120-25-4247-MEn1 c) Motion Controller for Stepper Motors, 3 Axis- 8SMC5-USB-B8-B9	
	B. NI DAQ System	a) USB-6363, NI USB-6363, X Series DAQ Device b) SHC68-68-EPM Shielded Cable, 68-D-Type to 68 VHDCI c) SCB-68A Noise Rejecting, Shielded I/O Connector	
	C. PC components	a) Intel Core i7 13700KF 16 (8+8) 3.40GHz or substantially equivalent b) ASUS ROG Strix Z790-F Gaming WIFI Mainboard Socket Intel LGA1700 (ATX, DDR5, 4x M.2, PCIe 5.0) or substantially equivalent c) Corsair Vengeance RGB schwarz DIMM Kit 64GB, DDR5-5600, CL36-36-36-76, on-die ECC or substantially equivalent d) Samsung 980 PRO M.2 NVMe SSD (MZ-V8P2T0BW), 2 TB, PCIe 4.0, 7.000 MB/s reading, 5.000 MB/s writing, Internes Solid	

		State Drive or substantially equivalent	
	D. Granite Base		
	E. Measurement Chamber for humidity regulation and gas exchange		
	F. Sample stage for simultaneous Potentiostatic and SKP measurements	SKP Head working on the lower side and Electrochemical Cell fixed on the upper side of the sample.	
	G. Vibration Dampers	FEABI 75	
	H. SKP Electronic		
	I. SKP Head with cooling System		
	J. Flow cell for electrochemical experiments General System Specification	<ul style="list-style-type: none"> <li>a) Maximal sample size: 100 mm</li> <li>b) Work function resolution: 1 - 5 meV</li> <li>c) The maximal spatial resolution of 40 <math>\mu\text{m}</math> depending on the probe tip diameter</li> </ul>	
	K. SKP Software		
	L. Humidity control, gas exchange system		
	M. Warranty	One-year post installation	
2.	Installation and Travelling expenses	Must be included in price	