



**INDIAN INSTITUTE OF TECHNOLOGY BOMBAY**  
**MATERIALS MANAGEMENT DIVISION**  
Powai, Mumbai 400076.

PR No. 1000051768

RFx No. 6100002561

Item Name: - **Semiconductor Curve Tracer System**

Sr. No	Item Description	Detailed Technical Specification	Technical Compliance (Yes / No)	Additional Information (if any)
1.	System Architecture	Complete system including measurement units, fixtures, interlocks, software, cables.		
2.	High-Voltage (HV) Unit	<ul style="list-style-type: none"><li>• Output Voltage <math>\geq 5</math> kV</li><li>• Resolution <math>\leq 250</math> fA</li><li>• Current <math>\geq 8</math> mA (DC/Pulse)</li></ul>		
3.	High-Current (HC) Unit	<ul style="list-style-type: none"><li>• Peak current <math>\geq 500</math> A</li><li>• Resolution <math>\leq 100</math> pA</li><li>• Kelvin measurements</li></ul>		
4.	Medium-Voltage (MV) Unit	<ul style="list-style-type: none"><li>• Voltage <math>\geq 200</math> V</li><li>• Current <math>\geq 2</math> A pulse &amp; <math>\geq 200</math> mA DC</li><li>• Resolution <math>\leq 250</math>fA</li><li>• Synchronised gate/drain pulsing</li></ul>		
5.	Gate Unit	<ul style="list-style-type: none"><li>• Gate voltage <math>\geq \pm 40</math> V</li><li>• Gate leakage resolution <math>\leq 250</math> fA</li></ul>		
6.	Measurement Features	<ul style="list-style-type: none"><li>• Static &amp; pulsed IV</li><li>• Transfer/output curves</li><li>• Gate charge</li><li>• Leakage current measurements</li><li>• C-V measurements</li></ul>		
7.	Safety Requirements	<ul style="list-style-type: none"><li>• Interlocked chamber</li><li>• HV-rated cables</li></ul>		

8.	Fixtures & Accessories	<ul style="list-style-type: none"> <li>• Fixture rated 5 kV &amp; 500 A</li> <li>• Kelvin connections</li> <li>• Hot plate arrangement on for high temperature measurements</li> <li>• Test fixture for TO-220, TO-247 devices</li> <li>• Mounting rack</li> </ul>		
9.	Documentation	<ul style="list-style-type: none"> <li>• Manuals</li> <li>• Calibration certificates</li> <li>• Safety compliance</li> <li>• Connection diagrams</li> </ul>		
10.	Warranty	<ul style="list-style-type: none"> <li>• Minimum 3-year warranty</li> </ul>		
11.	Delivery T&C	<ul style="list-style-type: none"> <li>• 10-12 weeks from receipt of PO</li> </ul>		