



# INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

## MATERIALS MANAGEMENT DIVISION

Powai, Mumbai 400076

Reference (PR No. 1000019966) RFx No. 6100000754

### Technical Specifications of Spare parts of Spare parts of Element of Energy Dispersive X Ray Spectroscopy (EDS) System

Part No	Description
PV6500	<b>Element EDS System, manual slide with APEX Standard Software</b>
	Element EDS System with Element Silicon Drift Detector with manual slide and APEX™ Standard Software
	Element Silicon Drift Detector with manual slide <ul style="list-style-type: none"> <li>• Liquid Nitrogen free with integrated Peltier cooling system.</li> <li>• Typical resolution of 129 eV, measured at Mn K<math>\alpha</math>, measured according to ISO 15632:2012.</li> <li>• 30 mm<sup>2</sup> SDD chip.</li> <li>• Silicon Nitride window with honeycomb grid: increased transmissivity; increased light element sensitivity; plasma cleaner compatible.</li> <li>• Capable of handling throughput of &gt;300kcps.</li> <li>• Multiple amp times available.</li> <li>• Vacuum encapsulated module: better low energy sensitivity, lower power draw.</li> <li>• 10 eV/channel resolution for spectral collection.</li> <li>• Manual Slide.</li> <li>• Single mains plug with universal input voltage</li> </ul> <p>The detector conforms to ISO 15632:2012 specifying performance at productive count rates</p>



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	<p><b>APEX™ Standard Software</b></p> <p>An intuitive software package for fast and accurate elemental analysis with an easy-to-use user interface for EDS data collection, analysis, mapping, and reporting. The APEX™ Software Suite streamlines analysis and facilitates workflow for material characterization.</p>
	<p><b>Element DPP Support Box</b></p> <p>Beam control and data acquisition package provides digital control of the electron microscope beam and acquisition video signal with 16-bit resolution.</p> <ul style="list-style-type: none"> <li>• Advanced signal acquisition electronics for SDD drive high throughput and stable resolution performance</li> <li>• User-selectable processing times allow collection tailored to application-specific needs. Faster processing times drive higher throughput. Longer times improve resolution performance.</li> <li>• 5-level fast discriminator settings offer better pile-up rejection and reduce sum peaks</li> </ul>
	<p>Electron Microscope interface for Beam Control package.</p>
	<p>Stage Software enables control of microscope stage (X, Y and Z axes) through EDAX software. Offered if access controls are available from electron microscope.</p>
	<p>Column Software enables control of reading and changing of electron microscope column parameters through EDAX software. Offered if capability available on electron microscope.</p>

	<p><b>Z2-i7 Analyzer Specifications:</b></p> <ul style="list-style-type: none"> <li>• Intel i7-8700K (3.7 GHz, Max: 4.7 GHz, 6-Core)</li> <li>• Windows 10 Professional 64-bit Operating System</li> <li>• 16 GB DDR4-1600 MHz (2 x 8 GB)</li> <li>• 2 TB 7200 RPM SATA Hard Drive</li> <li>• LG DVD SATA Reader/Writer</li> <li>• Microsoft Office 2016 Home &amp; Business</li> <li>• 4 PCIe Slots (No Motherboard PCI Slots)</li> <li>• HP Serial Port Adapter Kit (optional)</li> <li>• Rear Panel 4 USB 3.1, Front Panel 2 USB 3.1</li> <li>• 1 Gigabit Motherboard Ethernet</li> </ul>
	<p>24" Widescreen Flat Panel LCD Monitor (for Element)</p>
	<p>Installation</p>