



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

**Ref No. (PR No. 1000039678)**

**(Rfx No.6100001702)**

**Technical specifications of Optical system for micro UTM with Image capturing software (Quantity: - 01)**

Sr. No	Particular	Compliance Yes / No	Add. Information if any
01	<p><b><u>Technical Specifications of Optical system for micro UTM with Image capturing software</u></b></p> <ol style="list-style-type: none"><li>1. Optical system</li><li>2. Optics with 8:1 zoom</li><li>3. Apochromatic greenough system is must</li><li>4. Camera port with interface with fixed split 50 vis:50 doc right -integrated with optical system</li><li>5. Magnification range 6.3X to 50X</li><li>6. Switchable zoom click stops 0.63x-0.8x-1x-1.25x-1.6x-2x-2.5x-3.2x-4x-5x</li><li>7. resolution 200 Lp/mm</li><li>8. Working distance more than 85 mm</li><li>9. object field of view 29 mm</li><li>10. Interchangeable eyepieces PL10x/23</li><li>11. Illumination systems</li><li>12. Smart high-power LED Light Source with Double Pipe Fiber units with electronics Illuminance should more than 90000 lx</li><li>13. LED Ring Light Illumination for shadow-less and homogeneous illumination with electronics</li><li>14. Optical system Base for micro UTM</li><li>15. Two plate mechanism Cast steel base with grinding from all sides and legs for height and surface level adjustment builtin level bottle</li><li>16. Stage mounting single unit for two stages :-</li></ol>		

	<p>17. Micro UTM Size 22 x 88 x 90 stage mounting arrangements With stage centering facility Quick clamping mechanism sample positioning arrangement +/- 300 micron</p> <p>18. Micro Utm size 36x108x147 stage mounting arrangements with stage centering facility Quick clamping mechanism sample positioning arrangement +/- 500 micron</p> <p>19. Camera adapter</p> <p>20. High resolution c-mount camera adapter 0.5X for optical system</p> <p>21. High resolution Scientific Camera system with capture frequency selectable</p> <p>22. 5.0 MPixel 1/2.5" CMOS Camera for Microscope</p> <p>23. Sensor CMOS</p> <p>24. Resolution 2592 x 1944</p> <p>25. Mpixels 5.0</p> <p>26. Max.frame rate [Hz] 5.8</p> <p>27. Shutter type Rolling / Global Resel</p> <p>28. Sensor size 1/2.5"</p> <p>29. Pixel size [ μm ] 2.2 / 2.2</p> <p>30. Exposure time 10 μs – 1 s</p> <p>31. ADC resolution / Output 20 bit → 10 / 8 bit</p> <p>32. SNR &gt; 38 dB</p> <p>33. DR [ normal / HDR ] &gt; 70 dB /</p> <p>34. Trigger [ HW / SW ] Yes / Yes</p> <p>35. Pipelined in continuous / Yes / No [ Reset only]</p> <p>36. Triggered more</p> <p>37. Software</p> <p>38. Software design for automatic capturing of images with selected frequency and automatic generate database time vs images and automatic images save with time as name of image</p> <p>Warranty: - 12 months.</p>		
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