



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

Specification of Laser-free Spinning Disk Confocal System
Rfx No. 610000938 (Reference No. 100021167)

1. Confocality: Atleast 0.6 micrometer (full width at half maximum) with 1.4 NA oil objective.
2. Optics should be based on combination of spinning disk with grid like patterns for Structured illumination microscopy.
3. Spinning disk speed: At least 3,000 rpm
4. Broad spectrum LED illumination with spectral coverage from UV to red region with remote operational control, wattage of 20 W or more for 1 band, wattage of 30 W or more for 2 band, wattage of 36 W or more for 3 band and having **long life-time >15000 hours** (coverage: 370-700 nm).
5. Digital sCMOS camera with **quantum efficiency of >80 %** minimum effective number of pixels: 2048 x 2048, cell size 6.5-micron X 6.5-micron, effective area of 13.3 mm X 13.3 mm, readout speed of at least 30 fps at Full frame.
6. Compatible camera detector and light source port should be available within the Scanner.
7. The unit should be connected with any Microscopic Platform (Inverted/Upright/Stereoscopic) having Z drive motorized atleast for capturing the Optical sections.
8. Band pass filter cubes for detection of fluorophores: DAPI, GFP, YFP, RFP/DsRed, PI, Cy5 imaging.
9. Imaging software that can control camera, confocal unit, and XYZ stage as well as is customizable for additional configurations. Also quoted the analysis software for Confocal data.
10. System should be supplied with suitable PC (i7 Processor) having 8GB RAM, 500GB HDD, 1GB Graphics card, high resolution 24-inch display. System should be supplied with 1 Year standard warranty.