

SPECIFICATION FOR UPRIGHT COMPOUND ADVANCE RESEARCH MICROSCOPE FOR BRIGHT FIELD, DARK FIELD, PHASE CONTRAST, POLARIZING, FLUORESCENCE & DIC MICROSCOPY WITH DIGITAL IMAGING SYSTEM

Optical System	Infinity corrected system
Microscope Stand:	Ergonomic Stand with 12V 100W power supply, stabilized 100V ... 240V. Microscope body should have position to mount at least 06 or more transmitted light filters at a time (Neutral Density filters, Blue Filter, Green Filter). In order to keep thick specimens there should be a provision to increase the working distance by adding adapters.
Observation Tube:	Trincocular Observation tube for attaching two cameras simultaneously with inclination angle of 20 degree or lower which should support F. No. at least 23 or better (e.g. 25 or higher). It should have 2 step light path selector of 100:0/0:100
Nosepiece:	6 position inward tilt nosepiece with slots for individual DIC sliders.
Condenser:	Achromat Aplanatic Universal Condenser 0.9 for Bright Field, Dark field, Phase contrast, DIC with 5 position modular turret disk (1 Bright field position, 4 Phase / DIC position). The condenser should work for all Objectives from 1X - 100X.
Eyepieces:	Paired Widefield Eyepieces of 10X with minimum field of view 23mm/25mm. Or more, focusable & adjustable diopter setting of +/- 5
Illumination:	12 V 100W Halogen Illumination (12V 100W Halogen Lamp)
Objectives:	7 objective lenses-Plan Achromat/Plan Fluor Objective of 5x/ 0.12 (W.D. ≥ 10 mm), Plan Fluor Objective of 10X/ 0.25 (W.D. ≥ 6.5 mm) Long working distance Epi Plan Fluorite/ Neofluar Objective of 20X/0.22 (W.D. ≥ 12 mm) for Brightfield & Darkfield , 50x/ 0.55 (W.D. ≥ 9 mm) for brightfield & Darkfield, Plan Fluor 40X/0.75 (W.D. ≥ 0.7 mm), Plan Fluor 60X/63x/0.9 (W.D. ≥ 0.12 mm), & Plan Apochromat 60x/63x water/1.0 (W.D. ≥ 2 mm). Complete DIC Attachment (Analyzer, Polarizer & DIC Slider, DIC Module) for 20x & 50x should be quoted. Polarizer should be attached to condenser module.
Mechanical Stage:	It should have a Rectangular Hard coated anodized surface mechanical stage with stage size of 215 X 165 mm for X and Y movement of the specimen with right drive 135mm (extendable by 10-15mm)
Fluorescence Attachment:	It should have minimum 6-position to 10 position reflector turret with Push and Click mount (One should be able to Mount/ change / remove filter without using any Allen key) for mounting different Filter cubes. It should have a self-adjusting 100W or more Mercury illumination or Metal Halide Lamp of at least 2000 working hours. Band Pass Fluorescence Filters for FITC/GFP, TRITC/RHODAMINE & DAPI/HOECHST excitation to be quoted.
Monochrome Cooled Digital Camera:	12-bit Scientific Digital Microscopy Cooled Camera with Fire Wire interface of basic CCD resolution of 1.4 net effective pixels with pixel size 6.45 x 6.45 microns & 2/3" CCD Chip size, binning facility and frame rates upto 31 fps. Dynamic range of the camera should be 66DB or higher.
Color Digital Camera	12-bit Scientific Digital Microscopy Color Camera with Fire wire interface. 5 Mega Pixel resolutions with pixel size of 3.45 X 3.45 microns and 2/3" CCD Chip size. Minimum frame rate of 15 fps. Note: If any vendor can provide the features of above 2 cameras in one single camera they can also offer/ quote it.
Image analysis	Software for image capturing, storing, annotation, point to point measurement, multi channel fluorescence and time lapse imaging should be

Software: quoted.

Computer: Branded Desktop computer (24") compatible with the Camera and Software with following specs should be quoted alongwith the system.
Intel Core Processor i5, 4 GB DDR RAM, 500 GB HDD, DVD Combo Drive, 4 USB Ports (2 ports should be in front), Firewire port for attaching Camera cable, Windows 7 64 bit operating system

Please Point wise technical compliance statement to be attached.
Include (Mentioning the page No of quotation and Catalogue), dust protection set, eyepiece eyecap. spare halogen lamps-5 numbers and 5 spare Mercury illumination or Metal Halide Lamp should be quoted separately.

Single Microscope, Camera and Software should be from a single company for
Company better integration, warranty of the whole system should be of 2 years.