

# **UNIVERSITY OF CALCUTTA**

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#### DEPARTMENT OF BIOPHYSICS, MOLECULAR BIOLOGY & BIOINFORMATICS

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### **Quotation Notice**

Ref No: <del>SB/BMB/02/18-19</del> SB/BMB/01/19'-20'

Date: 07.01.2019

Quotations for the following items are invited from the authorized suppliers. Suppliers are hereby requested to submit quotations for the item (alongwith all the features and specifications mentioned below) including current trade license, GST, PAN, Certificate of incorporation and other credentials within 10 days from the publication of this notice in a sealed envelop addressed to the undersigned. The authority reserves the right to accept or reject any quotation without showing any reason thereof.

Sulipta Bhownek

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### Item 1: One "INVERTED TISSUE CULTURE FLUORESCENCE TRINOCULAR MICROSCOPE"

### Features

Complete Infinity Optical System (IOS) Microscope
Apply to observation and cultivation for cell tissue
Super Wide Field Eyepieces FOV Φ22mm
More comfortable for observation (Fatigue Free)
Long working distance condenser N.A. 0.30, Working distance : 80mm
Working distance: 195mm (without condenser), available for extra high culture dish
Large size stage, convenient for research. Size : 240mm (X) ×210 (Y) mm
Mechanical stage available for 96 holes plate. Moving range : $128mm$ (X) $\times 80$ (Y) mm.
Large diameter quintuple nosepiece can be installed more objectives, more convenient for using.
Light distribution (both): 100: 0 (100% for eyepiece); 80:20 (80% for trinocular head and 20% for eyepiece)

## Specifications

Eyepieces	: WF-10x FOV 22mm ( Pair )			
Objectives LWD Infinity Plan Objectives	: L Plan 10x / 0.25. W.D. 8.3mm L Plan 20x / 0.40 W.D. 7.2mm L Plan 40x / 0.65 W.D. 3.4mm LPL-PH 20x / 0.40 W.D. 7.2mm (Phase)			
Annular Spot	: 20x			
Seidentopf Trinocular Head eyepiece)	: Inclined 45°, interpupillary distance: 48-76mm, Light distribution (both) : 100: 0 (100% for eyepiece), 80:20 (80% for trinocular head, and 20% for			
Nosepiece	: Inner ward Quintuple revolving nosepiece			
<b>Mechanical Stage</b> : Stage size: $X \times Y$ : 210×241mm, Round slide size : $\Phi$ 110mm, Attached mechanical stage (available for 96 holes plate, moving range X x Y : 128 x 80mm.)				
Culture Dish Holder : 54mm and Blood Slide Holder				
Condenser : Long working distance, Quickly detachable, N.A.0.3, Working distance: 80 mm (with condenser), 195mm (without condenser).				
Koehler Illumination: 5WLED, input voltage : 100V~240Vwith Infrared Auto Power Off.				
Filters	: Blue and Green.			

<b>LED Fluorescence</b>	: 5W LED Fluorescence Attachment with 4 Groups having Three Fluorescence		
Attachment	Filters 1 <sup>st</sup> . <b>B (Blue)</b> 460-490nm (GFP) (Green Emission ).		
	2 <sup>nd</sup> . G (Green) 510-550nm (RFP) (Red Emission).		
	3 <sup>rd</sup> UV (Ultra Violet ) 330-385nm (UV)		

Applications	: Blue( 460-490µm)	: FITC : Fluorescent Antibody method, Acidine	
	(Green Emission)	Orange	
GREEN (510-550µm) : Rho		: Rhodamine, TRITC : Fluorescent	
	( Red Emission )Antibody method, PropidiumUV (330-385µm): Auto Fluorescent observation		
(Ultra Violet) HOECHEST		HOECHEST	

# Item 2: HDMI MICROSCOPE CAMERA WITH 'FISHWIZARD 4.2' SOFTWARE FOR FLUORESCENCE, PHASE CONTRAST AS WELL AS BRIGHT FIELD IMAGING .

**Features:** 

- 1. Camera image on PC and HD Monitor mode.
- 2. USB output , can connect with PC and use software.
- 3. 60fps at 1080P, fast framerate, Also support HDR.
- 4. Support SD Memory card, Max 32 GB.
- 5. Interface : PC via USB, LED TV or HD Monitor (Provided HDMI PORT) and Multimedia Project via HDMI Cable Camera Control via Remote Control device .

**Specifications:** 

Camera Sensor Resolution	: 1/2.8" ( 5.38mm x 3.02mm ) FULL HD : 2592 x 1944 (8 Bit)
Mode	: Dual ( Color / Mono )
<b>Dynamic Resolution</b>	: 1920 x 1080p @ 30fps.
Pixel Size	: 2.8 x 2.8µm
Output	: HDMI, USB, SD Card
Frame rate	: 60fps at 1080P and 15fps at 2592 x 1944 for PC
Memory card Support	: TF or SD card (Max 32 GB)
Snap Format	: JPEG
Video Format	: AVI
Exposure	: Auto/Manual
White Balance	: Auto/Manual
Cross Line	: Horizontal 4 lines, Vertical 4 lines
Freeze/Unfreeze	: Available
<b>Cross Line Move/Color</b>	: Available
High Dynamic Range	: Support
<b>Digital Noise Reduction</b>	: Support
Camera Mount	: C or CS Mount
Power Supply	: DC 12V
Light Frequency	: 50HZ or 60HZ
Working Temperature	: 0-50 Degree
Camera Size	: 83 x 74 x 52mm
Weight	: 200g
<b>C-Mount Reduction Lens</b>	: 0.37x (for maximum field coverage)

### **Image Analysis Options**

Image Processing and Enhancement, Image Stitching, Image Stacking, Extended function, Colour Composition and **Fluorescence Image Merging**.

### Calibration & Measurement with respective Scale Bar

Live Image Calibration according to Objectives Power and Measure Live Image with respective Scale Bar.

**2D Measurement**: Various Live image Morphometric measurement methods like length, curved length, area, perimeter, angle, radius, circle, eclipse, text annotation, arrow marking etc.. Measurement results can be save to Excel format or JPEG, PNG, TIFF Image format.

#### Capture

Live Still image capture by snap option or without interruption of original image preview to be save to your selected Folder. Video clips can be save as AVI or MP4. Special features of Time Lapse.

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